CANAL RECORD

VOL. - 22

1928 - 1929

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THE PANAMA CANAL RECORD

PUBLISHED WEEKLY UNDER
THE AUTHORITY AND SUPER-
VISION OF THE PANAMA CANAL

AUGUST 8, 1928, TO JULY 31, 1929

VOLUME XXII
WITH INDEX

THE PANAMA CANAL
BALBOA HEIGHTS, CANAL ZONE
1929

THE PANAMA CANAL PRESS
MOUNT HOPE, CANAL ZONE
1929

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THE PANAMA CANAL RECORD

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Volume XXII. Balboa Heights, C. Z., August 8, 1928. No. 1.

Canal Traffic During July.

During the month of July, 1928, 509 commercial vessels and 10 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,109,083.19, and on the launches, $73.35, or a total tolls collection of $2,109,156.54.

The daily average number of transits of seagoing vessels for the month was 16.41, and the daily average tolls collection, $68,034.94. The average amount of tolls paid by each of the commercial transits was $4,143.58, as compared with $4,191.67 for the month of June, 1928. Traffic in July exceeded that of June by 28 transits and by almost $93,000 in tolls.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 7 months of the current calendar year, with the daily averages of transits and tolls:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,370.57	17.48	71,271.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
Totals	3,658	15,121,750.37	17.17	70,994.13

Tanker Traffic Through the Panama Canal in July, 1928.

During the month of July, 1928, 96 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 506,542, on which tolls of $442,108.53 were collected. Cargo amounted to 462,483 tons. This included 9,340 tons of molasses routed from Honolulu to Mobile. In point of net tonnage, tanker traffic for the past month showed a decrease of 22.9 per cent under the same traffic for the corresponding month a year ago, while cargo tonnage decreased 22.7 per cent under the cargo tonnage of July, 1927.

Tank ships comprised 18.8 per cent of the total commercial transits through the Canal during the month; made up 21.8 per cent of the total Panama Canal net tonnage; were the source of 20.9 per cent of the tolls collected; and carried 20.2 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of July, 1928, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for July, 1927:

(Continued on page 6.)

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 4, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Steelore	7-28	4.00	29	6.10	29	13.53	29	15.05	American	Ore S. S. Corp	550.3	72.2	22.9	Norfolk, Va	Cruz Grande, Chile	Ballast		15,551	4,297
Apple Branch	8-28	22.25	29	6.20	29	14.12	29	15.30	British	F. & W. Ritson	375.0	51.0	19.2	Liverpool, England	Corral, Chile	General	1,864½	5,112	3,511
Empire Arrow [1]	29	6.08	29	7.25	29	14.42	29	16.10	American	Standard Transp. Co	468.0	63.0	16.6	New York, N. Y	Los Angeles, Calif	Ballast		9,841	6,946
American	29	3.50	29	7.50	29	15.05	29	16.10	American	Amer.-Hawaiian Line	404.6	53.6	18.6	Boston, Mass	Portland, Oreg	General		3,496	6,777	4,761
Pacific Fir	29	7.15	29	8.30	29	15.45	29	17.35	American	Dimon S. S. Co	410.5	54.0	21.6	New York, N. Y	Seattle, Wash	General		5,377	6,622	4,882
Antineus	29	2.40	29	9.15	29	17.00	29	18.35	British	Andrew Weir & Co	401.6	54.3	25.0	Tampico, Mexico	Auckland, N. Z	Asphalt		6,885	6,271	4,637
Urubamba	24	18.25	29	10.35	29	17.43	29	19.30	Peruvian	Peruvian Line	381.2	46.0	19.3	Cristobal, C. Z	Callao, Peru	General		94	4,803	2,951
Minden	28	20.30	29	11.20	29	18.37	29	20.15	German	North German Lloyd	385.0	51.0	18.6	Bremen, Germany	Champerico, Guat	General		1,947	4,822	3,272
M. S. Dollar	29	10.05	29	11.50	29	19.12	30	5.00	British	Can.-Amer. S. S. Co	475.0	61.0	23.3	Tampa, Fla	Vancouver, B. C	Phosphate rock		6,505	10,116	7,680
Robin Adair	29	11.40	29	12.10	29	20.15	29	21.25	American	Isthmian S. S. Lines	425.0	55.2	24.2	New York, N. Y	Vancouver, B. C	Steel, general		6,595	7,470	5,529
Golden Gate	29	13.45	29	13.50	29	21.07	30	2.20	Norwegian	Scand.-So. Pacific Co	381.5	53.1	21.0	Oslo, Norway	Corral, Chile	General		3,302	5,616	3,879
Sudawsonco	29	14.05	29	14.15	29	21.55	29	23.07	American	Transmarine Lines	324.0	46.2	17.1	Newark, N. J	San Francisco, Cal	General		1,000	3,984	2,628
Norwich City	29	14.10	29	14.25	29	21.47	30	4.25	British	Canadian Transp. Co	397.0	53.5	15.9	Cardenas, Cuba	Los Angeles, Calif	Sugar		3,000	6,051	4,514
Portland [2]	28	21.55	29	14.55	29	22.22	30	3.00	German	Hamburg-American Line	462.2	61.2	24.0	Hamburg, Germany	Vancouver, B. C	General, bananas		5,651	9,139	6,651
Trevorian	29	17.40	29	17.55	30	13.19	30	14.45	British	Amer.-Australian Line	400.0	52.0	20.6	New York, N. Y	Dunedin, N. Z	General		2,793	6,022	4,434
Baralt	25	20.20	30	6.05	30	14.32	30	15.35	Dutch	Royal Neth. S. S. Co	202.0	33.1	12.0	Cristobal, C. Z	Tumaco, Colombia	General		78	1,183	742
Surico	30	2.05	30	6.10	30	14.38	30	16.13	American	Transmarine Lines	324.0	46.0	23.8	Mobile, Ala	Seattle, Wash	General		2,745	3,984	2,628
Selvistan	30	3.20	30	6.15	30	15.15	30	19.00	British	Common Brothers	390.0	53.6	16.0	Tyne, England	Portland, Oreg	Ballast			5,619	4,127
Anthea	30	5.55	30	7.20	30	15.56	30	16.58	British	C. T. Bowring & Co	385.4	53.0	16.0	Kingston, Jamaica	Portland, Oreg	Ballast			5,788	3,852
S-14 [3]			30	7.44	30	16.30			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z					
S-15 [3]			30	7.44	30	16.30			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z					
S-17 [3]			30	7.44	30	16.30			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z					
O-8 [3]			30	7.44	30	16.30			American	U. S. Navy	172.4	18.0		Cristobal, C. Z	Balboa, C. Z					
Penelope [1] [2]	30	6.00	30	8.35	30	16.54	30	21.00	Danzig	Baltic-Amer. Pet. Co	489.0	63.0	21.6	Hamburg, Germany	Los Angeles, Calif	Ballast		9,302	6,127
Limon	30	6.10	30	8.50	30	17.16	30	18.36	American	United Fruit Co	330.6	45.0	20.6	Port Limon, C. R	San Francisco, Cal	Bananas, coffee	707	3,675	2,229
George W. Barnes [1]	30	16.30	30	9.38	30	17.30	30	19.00	American	Huasteca Petroleum Co	417.0	56.0	20.3	Baltimore, Md	Los Angeles, Calif	Ballast		6,763	4,759
M. F. Elliott [1]	30	6.40	30	10.18	30	18.06	30	19.00	American	Standard Shipping Co	425.0	57.2	21.6	New York, N. Y	Los Angeles, Calif	Ballast		7,481	4,946
San Manuel [1]	30	14.30	30	14.45	30	21.35	31	1.32	British	Eagle Oil Transp. Co	407.0	52.3	19.6	Hull, England	Los Angeles, Calif	Ballast		6,183	4,343
Bagaduce [4]			30	8.00	30	16.28			American	U. S. Navy	149.3	30.0		Cristobal, C. Z	Balboa, C. Z				
Santa Cruz	30	7.55	31	6.08	31	14.42	31	21.30	American	Grace Line	384.0	50.2	21.0	New York, N. Y	Tocopilla, Chile	General		4,334	5,534	3,868
Lippe	30	20.15	31	6.20	31	15.17	31	16.25	German	North German Lloyd	475.0	59.6	25.0	Bremen, Germany	Portland, Oreg	General		5,862	8,734	5,995
Steel Engineer	31	2.15	31	7.15	31	15.52	31	16.55	American	Isthmian S. S. Lines	424.2	56.2	26.3	Mobile, Ala	Kobe, Japan		(5)	7,991	7,611	5,450
Hawaii Maru	31	11.05	31	11.15	31	17.25	31	18.25	Japanese	Osaka Shosen Kaisha	475.0	61.0	21.0	Buenos Aires, Arg	Kobe, Japan		(6)	2,318	10,173	7,354
Martha [2]	31	13.05	31	13.20	31	21.30	8-1	2.55	Norwegian	H. C. Stevenson	181.0	30.0	10.3	Covenas, Colombia	Buenaventura, Col	Cattle		150	780	504
Birchbank [2]	31	14.35	31	15.05	31	22.07	1	2.35	British	Bank Line, Ltd	420.0	53.9	23.6	New York, N. Y	Shanghai, China	General		6,411	7,137	5,054
British Yeoman [4]	31	14.55	31	20.55	8-1	9.29	1	10.56	British	Shell Oil Co	440.0	57.0	18.3	Falmouth, England	Los Angeles, Calif	Ballast			7,644	5,070

[1] Tanker. [2] Motor ship. [3] Submarine. [4] Tug. [5] Cotton, pig iron, and sulphates. [6] Bone, oil, wax, and general.

Logician	27	15.20	1	6.05	1	14.08	1	15.00	British	T. & J. Harrison	420.0	55.0	20.6	Liverpool, England	Vancouver, B. C.	Ballast		6,652	4,688
Ballena	30	17.40	1	6.05	1	14.40	1	15.50	British	Pacific Steam Nav. Co.	413.0	52.0	22.7	Hull, England	Corral, Chile	General	4,200	5,816	4,113
Alkmaar	31	8.30	1	6.37	1	15.07	1	15.50	Dutch	Royal Neth. S. S. Co.	466.0	62.6	20.2	Hamburg, Germany	Corral, Chile	General	3,298	9,505	6,644
Missourian [3]	31	17.00	1	7.55	1	15.26	1	16.42	American	Amer.-Hawaiian Line	445.0	59.8	19.2	Boston, Mass.	Seattle, Wash.	General	3,177	8,567	6,020
Unicoi [2]	31	17.20	1	8.20	1	15.46	1	23.30	American	Roosevelt S.S.Co.,S.B.	416.0	54.0	24.11	Baltimore, Md.	Darien, China	Case oil, general	6,737	7,097	5,327
Ingola	8–1	00.45	1	9.00	1	16.40	1	20.00	British	Ardmore Coal & S. S. Co.	352.0	50.5	21.6	Baltimore, Md.	Tocopilla, Chile	General	4,534	4,340	3,202
Eleanor Christensen	1	2.55	1	9.35	1	17.28	1	18.30	American	Christensen S. S. Co.	410.5	54.3	17.6	Baltimore, Md.	Seattle, Wash.	General	2,556	6,572	4,788
Aconcagua	1	2.25	1	10.05	1	18.28	1	19.27	Chilean	South American Line	423.0	56.2	26.3	New York, N. Y.	Valparaiso, Chile	General	2,387	7,764	4,705
Ida Knudsen [1 2]	1	00.10	1	10.55	1	18.55	1	20.10	Norwegian	Chile S. S. Corp.	465.7	62.0	19.0	Rotterdam, Holland	Los Angeles, Calif.	Ballast			
Lillian Luckenbach	1	6.42	1	12.00	1	19.10	1	23.30	American	Luckenbach Line	449.0	60.2	23.6	Boston, Mass.	Seattle, Wash.	General	5,500	9,294	6,865
Tongking [2]	1	5.50	1	13.35	1	20.42	2	13.15	Danish	East Asiatic S. S. Co.	410.0	55.2	19.0	Copenhagen, Den'k	Vancouver, B. C.	General	3,270	7,013	5,317
Salvador	7–16	14.40	2	6.00	2	13.30	2	17.15	British	Pacific Steam Nav. Co.	215.0	33.5	16.7	Cristobal, C. Z.	Champerico, Guat.	General	1,075	1,270	735
Toba Maru	8–2	6.45	2	7.05	2	14.26	2	15.43	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.0	Baltimore, Md.	Kobe, Japan	General	7,190	8,058	5,743
Chateau Thierry [7]	2	7.28	2	7.45	2	14.11	3	13.05	American	U. S. Army	437.0	58.0	25.0	New York, N. Y.	San Francisco, Cal.	Army supplies	465		
Sunbeam [1]	2	7.45	2	8.20	2	15.08	2	18.00	American	Sun Oil Co.	429.3	59.2	21.6	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,709	5,562
Herakles	2	11.30	2	11.35	2	18.45	2	19.48	Norwegian	Bruusgaard Kiosterud	389.8	54.1	21.6	Cardiff, England	Los Angeles, Calif.	Coal and coke	3,820	5,680	4,220
Success [8]			2		2	13.34			American	C. A. Wickham				Cristobal, C. Z.	Gatun, C. Z.	[10]		4	4
No. 19 [9]			2		2	13.34			American	American Banana Corp.				Cristobal, C. Z.	Gatun, C. Z.	Ballast		17	17
No. 20 [9]			2		2	13.34			American	American Banana Corp.				Cristobal, C. Z.	Gatun, C. Z.	Ballast		17	17
Pomona	3	8.00	3	8.15	3	15.01	3	16.30	American	Norton, Lilly & Co.	440.0	56.0	16.6	Baltimore, Md.	Everett, Wash.	Ballast		8,324	6,036
Mary Ellen O'Neil [1 2]	3	11.50	3	12.05	3	20.20	3	21.21	American	California Petroleum Co	509.7	70.3	22.6	Chester, Pa.	Los Angeles, Calif.	Ballast		12,425	7,338
Point Sur	3	12.45	3	13.00	3	21.09	3	22.40	American	Gulf-Pacific Line	335.0	46.0	18.0	Tampa, Fla.	Seattle, Wash.	General	2,400	3,984	2,612
Castletown	3	12.50	3	13.10	3	21.15	3	22.40	American	Charles Nelson Line	321.0	50.0	18.6	Baltimore, Md.	Seattle, Wash.	General	2,710	3,872	2,568
San Claudio [1]	3	14.15	3	14.20	3	21.58			British	Arend Petroleum Co.	305.0	51.3	11.0	Aruba, D. W. I.	Balboa, C. Z.	Ballast			
Hardanger	3	23.10	4	6.25	4	13.24	4	17.40	Norwegian	Westfal, Larsen & Co.	375.3	52.4	16.0	Santos, Brazil	San Francisco, Cal.	General	3,049	5,977	4,375
Manchuria	4	6.10	4	7.10	4	13.38	4	23.15	American	Panama-Pacific Line	600.0	65.3	27.6	New York, N. Y.	San Francisco, Cal.	General	1,947	17,044	11,488
Louise Maersk [2]	4	5.45	4	7.35	4	14.39	4	16.15	Danish	Isbrandtsen Moller Co.	302.2	44.0	19.8	Savannah, Ga.	Kobe, Japan	General	3,360	3,212	2,206
Toledo [2]	4	8.35	4	8.55	4	15.09	4	18.55	Norwegian	Barber S. S. Line	376.2	52.5	20.9	New York, N. Y.	Manila, P. I.	General	4,311	5,491	4,011
H. C. Folger [1]	4	17.40	4	18.20	5	10.35	5	12.00	American	Atlantic Refining Co.	435.0	56.0	22.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,461	5,159

[1] Tanker. [7] Transport. [8] Launch. [9] Barge. [10] Towing barges.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Papoose [1]	28	17.15	29	6.17	29	18.30	29	18.30	American	Petroleum Nav. Co.	423.0	53.2	27.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	8,945	6,285	4,370
F. H. Hillman [1]	29	6.00	29	6.59	29	19.40	30	00.45	American	Standard Oil Co of Cal.	500.0	68.2	29.0	Los Angeles, Calif.	Hull, England	Gasoline	13,695	11,225	7,913
Ruahine	28	12.50	29	7.12	29	17.55	29	17.55	British	N. Z. Shipping Co.	480.6	60.3	23.7	Wellington, N. Z.	London, England	[12]	3,982	11,443	8,417
Witram	28	20.30	29	8.10	29	20.15	30	1.25	German	North German Lloyd	448.9	58.2	25.6	Vancouver, B. C.	Hamburg, Germany	General	7,800	7,820	5,661
Astral [1]	29	8.30	30	6.13	30	13.30	2	15.45	American	Standard Transp. Co.	439.5	58.0	27.8	Los Angeles, Calif.	Baltimore, Md.	Gasoline	8,428	8,913	6,210
Ranja [1 11]	29	23.30	30	6.57	30	14.10	30	14.10	Norwegian	H. Waage	408.3	55.3	26.8	Los Angeles, Calif.	United Kingdom	Gasoline	8,688	6,468	4,317
Helen Olmsted [1]	30	3.00	30	7.08	30	15.00	30	15.00	American	The Texas Co.	425.8	57.0	27.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	11,085	7,484	5,216
Phoenix [1]	29	15.12	30	8.12	30	16.25	30	16.25	American	American Tankers Corp.	400.8	54.3	27.3	Honolulu, T. H.	Mobile, Ala.	Molasses	9,340	6,336	4,389
Padilla	29	17.01	30	8.40	30	17.15	4	10.05	Colombian	Colombian S. S. Co.	247.2	43.5	12.6	Buenaventura, Col.	Pto. Colombia, Col	Ballast		2,206	1,506
Dansborg	29	19.10	30	9.21	30	16.50	30	17.55	Danish	C. T. Hansen	369.0	49.5	23.0	Vancouver, B. C.	Antwerp, Belgium	Wheat, lumber	6,106	5,757	4,268
Poseidon	29	21.20	30	9.40	30	18.35	31	2.00	German	Hamburg-Amer. Line	450.8	57.2	25.0	Corral, Chile	Hamburg, Germany	General	9,001	7,684	5,224
Urla	29	21.37	30	10.20	30	19.40	30	21.15	British	C. T. Bowring & Co.	391.0	53.3	23.6	Victoria, B. C.	Boston, Mass.	Lumber	6,600	5,801	3,825
Santa Elisa	30	4.21	30	10.41	30	18.40	30	20.05	American	Grace Line	360.3	51.7	25.6	Talcahuano, Chile	New York, N. Y.	General	3,469½	5,957	4,325
Californian [11]	30	10.06	30	11.08	30	19.35	30	20.15	American	Amer.-Hawaiian Line	445.1	59.8	25.0	Portland, Oreg.	Boston, Mass.	General	7,046	8,567	6,020
Bethore	31	1.00	31	6.18	31	16.05	31	16.05	American	Ore S. S. Corp.	550.3	72.2	33.6	Cruz Grande, Chile	New York, N. Y.	Iron ore	19,800	15,476	4,354

[1] Tanker. [11] Motor ship. [12] Cold storage and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Socony [1]	30	23.30	31	6.46	31	15.10	31	20.30	American	General Petroleum Corp	321.7	46.2	23.6	Los Angeles, Calif.	New York, N. Y.	Gasoline	4,359	3,833	2,388
No. 88 [13]	30	23.30	31	7.30	31	20.15	31	20.30	American	General Petroleum Corp	250.0	43.0	20.2	Los Angeles, Calif.	New York, N. Y.	Gasoline	3,060	2,058	1,665
Orangeleaf [1]	29	10.00	31	7.56	31	18.10	31	18.10	British	Anglo-Saxon Petr. Co.	405.0	54.0	19.2	Balboa, C. Z.	Curacao, D. W. I.	Ballast			
Mystic	30	18.37	31	8.00	31	20.10	31	20.10	American	Munson, McCor'k Line.	400.7	54.2	24.0	Seattle, Wash.	Baltimore, Md.	Lumber, general.	5,829	6,623	4,668
F. J. Luckenbach	31	4.00	31	8.28	31	17.00	31	17.00	American	Luckenbach Line	446.0	56.1	24.0	Portland, Oreg.	Boston, Mass.	Lumber, general.	6,675	8,508	6,179
Brighton	31	8.15	31	9.24	31	19.05	31	20.30	British	R. Chapman & Son	409.6	54.0	25.3	Vancouver, B. C.	United Kingdom	Wheat	8,227	5,718	4,091
Rigi	31	9.35	31	10.38	31	21.30	8–1	5.40	Norwegian	Camillo Eitzen & Co.	418.0	52.6	25.6	Aberdeen, Wash.	Rotterdam, Holland	Lumber, general.	7,650	6,392	4,606
Louqsor	31	11.10	31	12.00	31	20.25	1	8.05	French	Messageries Maritimes	447.3	58.0	21.7	Noumea, N. Calid.	Dunkirk, France	[17]	3,263	7,487	5,162
Durazzo	31	5.00	31	12.14	31	22.26			German	Hamburg-Amer. Line	226.9	34.3	14.0	Buenaventura, Col.	Cristobal, C. Z.	Coffee, hides	271	1,633	1,041
J. W. Van Dyke [14]	31	8.40	8–1	6.10	8–1	15.15	1	15.15	American	Atlantic Refining Co.	364.9	51.0	25.2	Los Angeles, Calif.	Philadelphia, Pa.	Bulk gasoline	6,815	5,174	3,528
Mongolia	31	12.55	1	6.24	1	14.15	1	14.45	American	Panama-Pacific Line	600.0	65.3	28.6	San Francisco, Cal.	New York, N. Y.	General	3,888	17,041	11,426
Sunoil [1] [14]	8–1	6.00	1	7.11	1	15.55	1	19.55	American	Sun Oil Co.	480.6	66.0	28.6	Los Angeles, Calif.	Marcus Hook, Pa.	Gasoline	13,773	9,610	6,396
Pear Branch	1	2.50	1	8.06	1	17.10	1	17.10	British	F. & W. Ritson	398.6	53.9	23.4	Valparaiso, Chile	Liverpool, England	[18]	5,998	5,760	3,866
Victolite [1] [14]	1	5.00	1	8.43	1	17.50	1	17.50	British	Imperial Oil Co., Ltd.	510.2	68.2	30.0	Talara, Peru	Montreal, Canada	Crude oil	17,343	11,575	8,078
All America [15]	6–5	7.20	1	9.26	1	17.13	1	17.13	American	All America Cables	278.4	37.0	18.5	Puntarenas, C. R.	Cuba	Cable gear	280	1,919	875
Uribe	8–1	9.30	1	10.17	1	19.00			Colombian	Estrada S. S. Line	237.0	32.0	14.0	Buenaventura, Col.	Cristobal, C. Z.	Coffee, hides	800	1,154	663
Oregonian	1	9.40	1	10.22	1	18.20	1	18.20	American	Amer.-Hawaiian Line	404.0	54.0	23.0	Seattle, Wash.	Boston, Mass.	General	5,150	6,754	4,800
Hyacinthus	1	11.20	1	12.14	1	19.55	1	21.50	British	Clan Line, Ltd.	452.0	52.2	24.6	Suva, Fiji Islands.	London, England	General	8,000		
Thomas P. Beal	1	14.00	1	14.41	1	21.25	1	23.40	American	Isthmian S. S. Lines	394.1	55.1	26.0	Vancouver, B. C.	New York, N. Y.	Lumber, general.	6,662½	7,047	5,100
Wentworth	1	14.30	1	15.06	1	22.37	1	22.37	British	R. S. Dalgliesh & Co.	400.0	52.3	24.0	San Francisco, Cal.	Avonmouth, Eng.	Barley in bags.	7,273	5,721	4,058
Abron	1	15.05	1	15.46	2	00.02	3	2.30	American	Redwood Line	386.8	52.2	23.0	San Francisco, Cal.	New Orleans, La.	Lumber, general.	5,400	5,732	4,131
Chilore	2	1.00	2	6.04	2	15.10	2	15.10	American	Ore S. S. Corp.	550.0	72.2	34.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	20,000	14,538	9,348
Almagro	2	00.50	2	6.59	2	15.30	3	14.35	British	Pacific Steam Nav. Co.	303.4	43.0	13.6	Guayaquil, Ecu'dor	New York, N. Y.	[19]	155	2,826	1,760
San Patricio [1]	2	2.30	2	8.13	2	16.10	2	19.00	British	Anglo-Mexican Pet. Co.	530.0	66.6	18.8	Iquique, Chile	Aruba, D. W. I.	Ballast		11,886	8,664
Westfalen [14]	2	4.00	2	8.40	2	18.20			German	Colombian Transp. Co.	168.7	31.0	11.0	Buenaventura, Col.	Cristobal, C. Z.	Coffee, general.	108	804	510
Volumnia	2	8.00	2	9.04	2	17.15	2	18.15	British	DuPont de Nemours	423.6	56.0	24.0	Tocopilla, Chile	New York, N. Y.	Nitrates	8,700	6,229	4,524
San Mateo	2	9.30	2	9.45	2	17.35	3	16.00	American	United Fruit Co.	315.2	44.2	19.7	San Francisco, Cal.	Port Limon, C. R.	General	507	3,496	2,141
City of Panama [14]	2	7.30	2	10.05	2	17.35			Panaman	Panama Mail S. S. Co.	296.2	45.9	18.4	San Francisco, Cal.	Cristobal, C. Z.	[20]	1,049	3,848	2,603
King City	2	10.50	2	11.34	2	18.35	2	18.35	British	St. Just S. S. Co., Ltd.	400.5	54.3	26.0	Olympia, Wash.	Devonport, Eng.	Lumber	7,500	6,993	5,397
Venezuela	2	8.20	3	6.25	3	13.42	4	9.06	American	Panama Mail S. S. Co.	380.0	48.7	21.6	San Francisco, Cal.	New York, N. Y.	General	3,944	6,033	4,353
La Salina [1] [16]	7–26	19.50	3	6.40	3	14.05	3	14.05	British	Lago Shipping Co.	305.0	50.0	12.6	Balboa, C. Z.	Maracaibo, Ven'la	Ballast			
Vojvoda Putnik	8–2	17.20	3	7.10	3	15.50	3	17.15	Jugoslav	Baburizza & Co.	400.0	54.0	28.5	Tocopilla, Chile	Azores [22]	Nitrates	8,700	6,016	4,178
Willwello	2	23.30	3	7.39	3	17.10	3	21.00	American	Williams S. S. Line	409.8	54.2	25.6	Seattle, Wash.	New York, N. Y.	Lumber, general	7,693	6,821	4,927
Pacific Pine	2	23.30	3	8.13	3	17.35	3	17.35	American	Dimon S. S. Corp.	410.5	54.3	24.8	Seattle, Wash.	New York, N. Y.	Lumber	7,100	6,583	4,808
J. R. Gordon	3	00.45	3	8.43	3	18.25	3	18.40	American	Union Sulphur Co.	409.8	54.2	24.5	Tacoma, Wash.	Poughkeepsie, N.Y.	Lumber	6,700	6,581	4,784
Curaca	3	2.25	3	9.05	3	18.40	3	22.40	Panaman	Grace Line	403.0	52.4	23.0	Magallanes, Chile.	New York, N. Y.	Manganese ore	5,475	6,804	4,897

[1] Tanker. [13] Barge. [14] Motor ship. [15] Cable ship. [16] July 26th for drydocking only. [17] Copra, coffee, shells, cotton, nickel, and general. [18] Cotton, sugar, and nitrates. [19] Coffee, cocoa, hides, and ivory nuts. [20] Sugar, logs, hides, and general.

William F. Humphrey [1]	3	9.10	3	9.55	3	19.25	3	23.10	American	Tidewater Oil Co.	468.3	62.7	27.0	Los Angeles, Calif.	New York, N. Y.	Naphtha tops	11,800	9,776	6,903
Persephone [1 14]	3	18.10	4	6.25	4	13.25	4	13.25	Danzig	Deutscher Amer. Pet. Co.	468.3	63.2	27.1	Talara, Peru	Rotterdam, Holland	Peru naphtha	11,545	9,336	6,338
Nienburg	3	20.00	4	7.13	4	14.00	4	15.15	German	North German Lloyd	380.0	51.0	23.8	Punta Arenas, Chile	Hamburg, Germany	([22])	5,870	4,813	3,362
Cerigo	4	11.00	4	11.55	4	19.30			German	Hamburg-Amer. Line	227.2	34.6	13.3	Guayaquil, Ecu'dor	Cristobal, C. Z.	General	516	1,572	1,011
Anglo Indian	4	15.30	4	16.08	4	23.20	5	1.10	British	Lawther, Latta, & Co.	426.0	59.6	24.6	Vancouver, B. C.	Falmouth, Eng. [22]	Bulk wheat	9,141	7,130	5,322
Reinbek	4	16.30	4	17.11	5	12.10	5	16.25	German	Knohr & Burchard	236.3	37.5	17.3	Yavaros, Mexico	New York, N. Y.	Chick peas	2,103	1,710	1,167

[1] Tanker. [21] Nitrates, copper, and general. [22] For orders.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 29	Pastores	United Fruit Co	Port Limon, Costa Rica.	July 29	Inapaquina [23]	United Fruit Co	Colon, R. P.
July 29	Inapaquina [23]	United Fruit Co	Colon, R. P.	July 29	Anachucuna [23]	United Fruit Co	Colon, R. P.
July 29	Anachucuna [23]	United Fruit Co	Colon, R. P.	July 29	Pastores	United Fruit Co	New York via Habana.
July 30	Mayari	United Fruit Co	New York via wayports.	July 29	Simon Bolivar	Royal Netherlands S. S. Co	Amsterdam via wayports.
July 30	Ulua	United Fruit Co	New York via Habana.	July 30	Cleveland [26]	U. S. Navy	Nicaragua.
July 30	Resolute [24]	D. L. Lynton	Colon, R. P.	July 30	Parismina	United Fruit Co	New Orleans and wayports.
July 31	Rugia	Hamburg-American Line	Hamburg via wayports.	July 30	Mayari	United Fruit Co	New York via Kingston.
August 1	Coppename	United Fruit Co	New Orleans, La.	July 30	Resolute [24]	D. L. Lynton	Colon, R. P.
August 1	Cristobal	Panama Railroad S. S. Line	New York via Haiti.	August 1	Rugia	Hamburg-American Line	Port Limon, Costa Rica.
August 1	Zacapa	United Fruit Co	New York via Kingston.	August 1	Ulua	United Fruit Co	Port Limon, Costa Rica.
August 2	Saramacca	United Fruit Co	Bocas, R. P.	August 2	Zacapa	United Fruit Co	New York via wayports.
August 2	Virginia	American Fruit & S. S. Corp	New Orleans, La.	August 2	Coppename	United Fruit Co	Port Limon via Bocas.
August 2	Sesostris	Hamburg-American Line	Vera Cruz, Mexico.	August 2	Saramacca	United Fruit Co	New Orleans, La.
August 3	Lizzie D. Peabody [25]	M. P. Martinez	Colon, R. P.	August 2	Virginia	American Fruit & S. S. Corp	San Blas, R. P.
August 4	Cavina	Elders & Fyffes Line	Avonmouth via wayports.	August 4	Cavina	Elders & Fyffes Line	Kingston, Jamaica.
August 4	Maravi	United Fruit Co	New York via wayports.	August 4	Virginia	American Fruit & S. S. Corp	New Orleans, La.
August 4	Virginia	American Fruit & S. S. Corp	New Orleans, La.	August 4	Inapaquina [23]	United Fruit Co	Colon, R. P.
August 4	Heredia	United Fruit Co	New Orleans via Habana	August 4	Anachucuna [23]	United Fruit Co	Colon, R. P.
August 4	William M [24]	G. I. Bryan	Colon, R. P.	August 4	William M [24]	G. I. Bryan	Bluefields, Nicaragua.
August 4	Inapaquina [23]	United Fruit Co	Colon, R. P.	August 4	Sesostris	Hamburg-American Line	Hamburg, Germany.
August 4	Anachucuna [23]	United Fruit Co	Colon, R. P.	August 4	Maravi	Elders & Fyffes Line	New York via Kingston.

[23] Motor boat. [24] Schooner. [25] Motor schooner. [26] Cruiser.

PORT OF BALBOA.

July 29	San Luis [27]	Chiriqui Land Co	Chiriqui, R. P.				
July 30	H. M. Storey	Standard Oil Co	Los Angeles, Calif.	July 29	Cricamola [28]	Chiriqui Land Co	Chiriqui, R. P.
July 31	Chiriqui [27]	Chiriqui Land Co	Chiriqui, R. P.	July 30	San Luis [27]	Chiriqui Land Co	Chiriqui, R. P.
August 1	Frost [28]	Svea S. S. Co	Talara, Peru.	July 31	H. M. Storey	Standard Oil Co	Los Angeles, Calif.
August 1	Dos Hermanos [27]	A. Valdez	Bayano River, R. P.	July 31	Chiriqui [27]	Chiriqui Land Co	Chiriqui, R. P.
August 1	A. B. Obarrio [27]	Pacific Fruit Co	Bayano River, R. P.	August 1	Frost [28]	Svea S. S. Co	Champerico, Guatemala.
August 1	Chiman [28]	Isthmian Land & Fruit Co	El Real, R. P.	August 1	Dos Hermanos [27]	A. Valdez	Bayano River, R. P.
August 2	Cricamola [28]	Chiriqui Land Co	Chiriqui, R. P.	August 1	A. B. Obarrio [27]	Pacific Fruit Co	Bayano River, R. P.
				August 1	Epoca	Grace Line	Buenaventura, Colombia.
				August 3	Chiman [28]	Isthmian Land & Fruit Co	El Real, R. P.
				August 4	Cricamola [28]	Chiriqui Land Co	Chiriqui, R. P.

[27] Motor schooner. [28] Motor ship. * Other than ships passing through the Canal.

Tanker Traffic Through the Panama Canal in July, 1928.

(Continued from page 1.)

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	16	76,107	$56,235.99	5,835
Danish	1	6,024	4,337.28	.....
Danzig	2	12,465	8,974.80	.....
French	1	4,635	3,337.20	.....
Norwegian	2	9,589	6,904.08	.....
United States	28	155,868	115,994.83	12,686
Totals, July, 1928	50	264,688	195,784.18	18,521
Totals, June, 1928	51	270,917	207,154.95	53,676
Totals, May, 1928	32	170,811	125,686.91	12,995
Totals, July, 1927	62	345,496	252,532.90	14,846
Pacific to Atlantic.				
British	8	34,530	36,355.30	59,482
Norwegian	2	9,388	10,108.75	18,740
United States	36	197,936	199,860.30	[1] 365,380
Totals, July, 1928	46	241,854	246,324.35	443,962
Totals, June, 1928	39	211,872	215,261.95	382,036
Totals, May, 1928	41	209,621	216,418.53	363,702
Totals, July, 1927	54	311,682	321,670.00	583,227

[1] Includes 9,340 tons of molasses.

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months, and for July, 1927:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
July, 1928	33	176,648	$129,046.42	5,831
June, 1928	37	202,294	147,178.32	4,641
May, 1928	26	139,992	100,794.24	.....
July, 1927	48	268,988	195,611.70	6,028
From Los Angeles.				
July, 1928	39	209,472	212,735.30	384,358
June, 1928	27	141,569	144,231.95	261,233
May, 1928	26	138,180	144,904.45	255,893
July, 1927	45	263,810	271,442.50	492,975

Compagnie Generale Transatlantique Plans New Service.

The inauguration of a supplementary passenger and freight service between Europe and the west coast of North America is being planned by the Compagnie Generale Transatlantique. Three new vessels of 11,000 tons deadweight capacity, capable of making 14 knots, the *Oregon*, *Wyoming*, and *Wisconsin*, are now under construction and are to be placed in service next year. Each of the boats is to have cabin accommodations for 40 passengers and 500 tons of refrigerator cargo. Two will be steamers and one a motorship.

The vessels will make Cristobal a port of call and stop at San Pedro, San Francisco, Portland, Seattle, and Vancouver northbound and southbound. This line has at present a fortnightly service to the west coast, its boats sailing from Havre, Dunkirk, Bordeaux, and Antwerp.

Traffic by Nationality for July, 1928.

The following tabulation shows the commercial traffic through the Canal during the month of July, 1928, classified according to nationality of vessel by direction of transit, and the combined traffic in both directions, together with corresponding totals for July, 1927 and 1926:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	6,211	4,522	7,130	4,013	$5,652.50	7,300
British	[1]75	378,017	282,341	460,693	281,942	[1]324,536.55	220,355
Chilean	2	7,436	5,980	10,875	6,236	7,475.00	3,228
Colombian	5	2,587	2,225	3,777	2,278	2,762.45	3,066
Cuban	1	194	194	176	136	242.50	20
Danish	4	17,578	14,799	21,398	13,264	14,131.89	2,853
Danzig	2	12,465	10,504	17,895	10,048	8,974.80	.....
Dutch	6	23,923	16,299	26,834	16,498	20,373.75	12,100
French	5	23,591	18,143	29,823	17,839	20,985.95	10,429
German	15	61,539	42,769	71,850	43,519	53,461.25	40,922
Italian	1	5,867	4,372	7,057	4,455	5,465.00	1,419
Japanese	6	33,185	28,975	42,181	27,303	33,809.98	35,813
Norwegian	12	42,390	32,795	54,694	32,827	36,147.72	29,548
Panaman	1	2,606	1,384	3,644	2,594	1,730.00	2,728
Peruvian	3	6,885	3,978	10,204	5,356	4,953.55	2,375
Spanish	1	3,844	3,017	5,205	3,226	3,771.25	306
Swedish	5	22,687	14,895	33,837	18,013	16,355.32	10,044
United States	[2]125	[2]609,381	[2]471,147	761,750	470,626	533,863.75	351,855
Yugoslav	2	8,699	7,140	11,344	7,111	8,925.00	14,061
Totals, July, 1928	272	1,269,085	965,479	1,580,367	967,284	1,103,618.21	[3]748,160
Totals, July, 1927	280	1,323,649	1,032,027	1,686,511	1,031,969	1,149,465.16	739,656
Totals, July, 1926	241	1,156,000	906,259	1,490,562	909,056	1,001,504.93	686,354

[1] Includes Naval vessel of 5,150 displacement tons.
[2] Includes barge of 67 net tons and yacht of 20 net tons, Panama Canal and United States measurements; no registered tonnage.
[3] Two hundred and sixty-two tons of cargo from Gatun Lake not included.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	4,792	4,142	6,511	4,172	$5,177.50	8,141
British	[1]53	240,346	184,805	304,432	186,414	[1]231,231.70	315,017
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,613
Colombian	5	2,587	2,225	3,777	2,278	2,348.02	870
Danish	4	16,669	11,283	18,417	11,389	14,103.75	27,572
Dutch	6	25,827	18,444	31,142	18,320	23,055.00	37,078
Finnish	1	1,675	1,648	1,817	1,523	2,010.00	3,100
French	4	19,376	14,940	24,002	15,068	18,675.00	26,490
German	19	71,806	51,031	84,171	51,487	63,336.90	93,474
Italian	3	21,120	13,962	25,791	15,699	17,452.50	21,633
Japanese	2	10,105	8,749	12,828	8,573	10,756.30	16,142
Norwegian	12	43,098	32,209	53,010	31,577	40,260.28	71,255
Panaman	1	[2]33	[4]33	.....	.....	24.75	.....
Peruvian	2	5,356	2,495	8,049	4,187	3,118.75	4,340
Spanish	1	2,827	2,459	4,349	2,565	3,073.75	728
Swedish	3	13,836	10,364	38,636	12,427	12,955.00	48,200
United States	[3]118	[3]561,740	[3]441,353	713,999	440,241	550,053.28	859,949
Yugoslav	1	3,412	2,800	4,296	2,781	3,500.00	6,931
Totals, July, 1928	237	1,049,310	806,408	1,342,537	812,677	1,005,464.98	[4]1,543,795
Totals, July, 1927	229	1,083,306	851,111	1,385,744	853,689	1,066,050.83	1,710,812
Totals, July, 1926	215	998,821	786,109	1,285,166	794,331	979,214.74	1,499,173

[1] Includes 2 Naval vessels having a total displacement tonnage of 3,170 tons.
[2] Barge having no registered tonnage.
[3] Includes barge of 169 net tons, Panama Canal and United States measurements; no registered tonnage,
[4] Includes 262 tons of cargo from Gatun Lake.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	2	11,003	8,664	13,641	8,185	$10,830.00	15,441
British	[1] 128	618,363	467,146	765,125	468,356	[1] 555,768.25	535,372
Chilean	3	12,141	9,446	18,185	10,212	11,807.50	5,841
Colombian	10	5,174	4,450	7,554	4,556	5,110.47	3,936
Cuban	1	194	194	176	136	242.50	20
Danish	8	34,247	26,082	39,815	24,653	28,235.64	30,425
Danzig	2	12,465	10,504	17,895	10,048	8,974.80	.....
Dutch	12	49,750	34,743	57,976	34,818	43,428.75	49,178
Finnish	1	1,675	1,648	1,817	1,523	2,010.00	3,100
French	9	42,967	33,083	53,825	32,907	39,660.95	36,919
German	34	133,345	93,800	156,021	95,006	116,798.15	134,396
Italian	4	26,987	18,334	32,848	20,154	22,917.50	23,052
Japanese	8	43,290	37,724	55,009	35,876	44,566.28	51,955
Norwegian	24	85,488	65,004	107,704	64,404	76,408.00	100,803
Panaman	[2] 2	[2] 2,639	[2] 1,417	3,644	2,594	1,754.75	2,728
Peruvian	5	12,241	6,473	18,253	9,543	8,072.30	6,715
Spanish	2	6,671	5,476	9,554	5,791	6,845.00	1,034
Swedish	8	36,523	25,259	72,473	30,440	29,310.32	58,244
United States	[1] 243	[3] 1,171,121	[3] 912,500	1,475,749	910,867	1,083,917.03	1,211,804
Yugoslav	3	12,111	9,940	15,640	9,892	12,425.00	20,992
Totals, July, 1928.	509	2,318,395	1,771,887	2,922,904	1,779,961	2,109,083.19	2,291,955
Totals, July, 1927.	509	2,406,955	1,883,138	3,072,255	1,885,658	2,215,515.99	2,450,468
Totals, July, 1926.	456	2,154,821	1,692,368	2,775,728	1,703,387	1,980,719.67	2,185,527

[1] Includes 3 Naval vessels having a total displacement tonnage of 8,320 tons.
[2] Includes barge of 33 net tons, Panama Canal and United States measurements; no registered tonnage.
[3] Includes 2 barges having a total of 236 net tons and yacht of 20 net tons, Panama Canal and United States measurements; no registered tonnage.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 3, 1928.

The following was received by the Hydrographic Office from the Port Captain, Balboa:

"The wrecking tug *Killerig* is jettisoning the cargo on the M. S. *Cynthiana*, ashore 4 miles W. S. W. of Cape Mala. As some of the large timbers may go adrift, request has been made and the radio station will broadcast every 12 hours a warning to shipping to look out for timbers from this vessel.

S. A. TAFFINDER,
Port Captain."

Message being sent is:

"Ships approaching Cape Mala should look out for large drifting timbers jettisoned from steamer *Cynthiana* ashore four miles West Southwest of Cape Mala."

M. L. WALKER, *Governor.*

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 7, 1928.

The following was received at the Hydrographic Office through the Balboa Radio:

"S. S. *Columbia*, 6 p. m., August 6, reports that the red buoy marking Lafayette Shoal in Puerto Colombia is missing." (No signature.)

* * * * * * *

M. L. WALKER, *Governor.*

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending August 4, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Orangeleaf	Anglo-Saxon Petroleum Co.	July 29	July 31	5,836	.....
H. M. Storey.	Standard Oil Co. of Calif.	July 31	July 31	15,021	.....
Santa Cruz	Grace Line	July 31	July 31	.....	4
Durazzo	Hamburg-American Line	July 31	July 31	.....	157
Tongking	East Asiatic Co.	August 1	August 2	351	.....
Frost.	Hans Ericson	August 1	August 1	300	.....
Salvador	Pacific Steam Navigation Co.	August 2	August 2	.....	28
City of Panama	Panama Mail S. S. Co.	August 2	August 2	74	.....
Venezuela	Panama Mail S. S. Co.	August 2	August 2	45	.....

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., August 15, 1928. No. 2.

New Shaw, Savill and Albion Vessel Transits Canal.

The motor ship *Coptic* of the Shaw, Savill & Albion Company transited the Canal for the first time on August 7, 1928, en route from the United Kingdom to New Zealand. The *Coptic* is the third of a fleet of four new motor ships being placed in this trade by this company, having been preceded by the *Zealandic* and the *Taranaki*. The fourth vessel of this new fleet, the *Karamea*, is under construction and is to be placed in the service within a short time.

The *Coptic* is 482 feet long, 64 feet beam and of 11,190 deadweight tons. She carried 9,000 tons of general cargo on her maiden voyage.

Supplement No. 11 to Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 11, 1928.

Regulation 47.5 is changed to read as follows:

Regulation 47.5. *Vessels Carrying Volatile Crude Oil Products:* Vessels whose cargoes consist of volatile crude oil products in bulk, with flash point below 85° Fahrenheit, may be brought into either terminal day or night at the discretion of the Port Captain concerned, except when overdraft. Notice of such move into the inner harbor shall be given in advance to the Fire Division by the Captain of the Port.

(*a*) When overdraft, vessels of this class will not be handled in Canal Zone waters except during daylight.

(*b*) In addition to compliance with Rule 73 as to display of signals, such vessels shall exercise the utmost precautions to prevent explosion or fire.

(*c*) Vessels of this class shall not shift volatile crude oil products from ship to ship while in Canal waters.

Regulation 47.7,[1] contained in Supplement No. 2 of May 12, 1926, to the "Rules and Regulations Governing Navigation of the Panama Canal and Adjacent waters," is hereby canceled.

M. L. WALKER,
Governor.

[1] Published in THE PANAMA CANAL RECORD of July 7, 1926, page 646.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 12 cents per pound and forequarters at 9½ cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 11, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Corinthic	4	10.50	5	6 05	5	13 56	5	14 55	British	Shaw, Savill & Albion	500 0	63.4	27 10	London, England.	Lyttleton, N. Z.	General	6,750	12,821	9,507
Firpark	3	6 15	5	6 15	5	14.50	5	16 20	British	J. & J. Denholm, Ltd	280.1	41.9	12 0	Charleston, S. C.	Yavaros, Mexico.	Ballast		2,212	1,379
Garfield	4	15 35	5	6 15	5	14 19	5	15 30	American	N. O. & S. A. S. S. Line	299 4	45 0	17 11	New Orleans, La	Corral, Chile	General	1,295	3,256	2,010
Canadian Commander	4	16.50	5	7 05	5	14.51	5	16 20	British	Can. Nat. Steamships.	400.0	52 0	20.6	Montreal, Canada	Adelaide, Australia.	General	3,442	5,914	4,195
Montanan	4	18.50	5	7 10	5	15.33	5	16 40	American	Amer.-Hawaiian Line	405 0	54.0	18 0	Boston, Mass.	Portland, Oreg.	General	3,157	6,756	4,775
Equatore [4]	4	1.00	5	9 40	5	16 49	5	18 10	Italian	Nav. Gen. Italiana.	370 0	53 0	15.7	Genoa, Italy	Valparaiso, Chile	General	1,379	5,098	3,415
Glamorganshire	5	3 10	5	11 03	5	17 43	5	18 55	British	Royal Mail S. P. Co	445 0	58 0	25.0	Rotterdam, Holland	Vancouver, B. C.	General	4,278	8,229	5,982
Minnesota	4	16 40	5	12.00	5	18.40	5	19 40	French	French Line	410 0	50.0	20.0	Havre, France.	Valparaiso, Chile	General	1,171	6,483	4,441
Winifred O'Donnell [1]	5	13 25	5	13 35	5	20 13	5	21 30	American	The Texas Co.	434 0	56.0	22 0	Baltimore, Md	Los Angeles, Calif.	Ballast		7,425	5,202
Forthbridge	5	13 40	5	18 20	6	9 17	6	10 57	British	Empire Shipping Co	390 0	54 8	17 3	Philadelphia, Pa.	Vancouver, B. C.	Ballast		6,245	4,627
Oleander [1]	5	18 35	5	18 50	6	10 08	6	11 36	British	Davis & Newman.	430 0	57.0	18 0	New Orleans, La.	Los Angeles, Calif.	Ballast		7,426	5,095
Axel Johnson [2]	5	9 40	6	6 05	6	12 33	6	18 15	Swedish	Johnson Line	392 0	52 0	19 2	Gothenburg, Swed'n	San Francisco, Cal.	General	3,341	6,642	4,860
Port Napier	5	17 20	6	6 12	6	13 49	6	15 15	British	Com'lth & Dom. Line.	490 0	61 0	29 4	London, England	Bluff, N. Z.	General	8,480	10,978	8,115
San Rosendo [1]	6	00 45	6	7 20	6	15.12	6	19 30	British	Anglo-Mex. Petr. Co	407 0	52 3	24 9	New Orleans, La.	Valparaiso, Chile	Gasoline, kero'ne	7,289	6,237	4,353
San Mateo	6	4.55	6	7 15	6	15 28	6	16 25	American	United Fruit Co	315 2	44 2	19 3	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	966	3,496	2,141
O-9 [3]			6	7 15	6	15 30			American	U. S. Navy	172 4	18.0		Cristobal, C. Z	Balboa, C. Z				
Steel Voyager	6	3.30	6	8 15	6	16 20	6	17 24	American	U. S. Steel Products Co.	395 5	55 0	26 9	Baltimore, Md	Tacoma, Wash	Steel, general.	7,851	7,330	5,249
Absaroka	6	5.30	6	8 30	6	16 50	6	18.15	American	McCormick S. S. Co	409 6	54 1	19 0	New York, N. Y.	San Francisco, Cal.	General	3,882	6,627	4,993
England Maru	6	6 50	6	9 35	6	17.49	6	19 10	Japanese.	Kokusai Kisen Kaisha.	385.0	51.0	27.6	Jacksonville, Fla.	Yawata, Japan	(5)	7,886	6,214	4,665
August Leonhardt	5	18 10	6	11 20	6	18 15	6	23 10	German	Colombian Transp. Co	328 0	46 0	13 5	New York, N. Y.	Buenaventura, Col.	General	224	3,724	2,817
Oakpark	6	14 05	6	14.15	6	21 08	7	10 01	American	Roosevelt S.S. Co., (S.B.)	402 0	43 0	21 0	New Orleans, La.	Fremantle, Aust'lia	General, case oil	3,730	6,570	4,798
Steel Scientist	6	15 10	6	15 20	6	22 40	7	7 19	American	Norton, Lilly & Co.	425 0	56 0	26 0	Philadelphia, Pa.	Belawan, Sumatra	General	8,044	7,611	5,454
Silverash [2]	6	15.35	6	15 50	7	8 48	7	10 01	British	Kerr Line	425.6	58 3	23 0	New York, N. Y.	Far East	General	4,998	8,219	5,861
Durazzo	7-31	22.26	7	6.20	7	16 16	7	17 30	German	Hamburg-American Line	226.5	34.0	15.0	Cristobal, C. Z	Buenaventura, Col.	Passengers only		1,633	1,041
Feltore	5	9.30	7	6 15	7	16 28	7	17 30	American	Ore S. S. Corp	449.1	57.2	17.4	Newport News, Va	Cruz Grande, Chile	Ballast		7,808	5,139
Neches [1]	4	6 45	7	6 45	7	16 56	7	18 15	American	U. S. Navy	455.0	56.2	21 10	Guantanamo, Cuba	Los Angeles, Calif				
Coptic	6	17.55	7	7 20	7	17 16	8	4 00	British	Shaw, Savill & Albion.	482 6	64.2	24 0	Newcastle-on-Tyne	Dunedin, N. Z.	General	9,000	11,819	8,366
Parcora	7	1 05	7	8 30	7	17 45	7	18 45	British	Federal Steam Nav. Co.	480 0	62 0	25.0	New York, N. Y	Fremantle, Aust'lia	General	6,665	9,458	6,867
Sun [1] [2]	7	3 45	7	9 50	7	18 13	7	19 44	American	Sun Oil Co	480 6	66 0	21.2	Chester, Pa	Los Angeles, Calif.	Ballast		9,620	6,424
Dixie Arrow [1]	7	7.45	7	9 55	7	18 34	7	19 44	American	Standard Oil Co	468 3	62.7	17.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,744	7,140
Cape Ortegal	7	10.30	7	11.05	7	18 58	7	21 50	British	Lyle Shipping Co	405 0	52 0	14.3	Catania, Italy	Vancouver, B. C.	Ballast		5,650	4,071
Cisneros [2]	7	8 10	7	11.20	7	20 23	9	21.55	Colombian.	Colombian Government	171 6	31.0	16 0	Manaure, Colombia	Tumaco, Colombia	Salt	750	736	427
Myrtle	7	16.40	7	17 55	8	9 26	8	10 41	American	States S. S. Co	410.5	54.2	19 0	Wilmington, Del.	Portland, Oreg.	General	2,593	6,755	4,895
Rochester [4]	7	11 35	8	6 00	8	13.00			American	U. S. Navy	380 0	64 0	27.10	Cristobal, C. Z	Balboa, C. Z				
Colombia	7	2 45	8	6 03	8	13 24	8	21 45	American	Panama Mail S. S. Co.	379 0	48.7	25.7	New York, N. Y	San Francisco, Cal.	General	2,434	6,015	4,281

[1] Tanker. [2] Motor ship. [3] Submarine. [4] Cruiser. [5] Steel, cotton, phosphates, and rosin.

Tuscaloosa City	7	19.55	8	7.05	8	14.11	8	15.40	American	Isthmian S. S. Lines	441.0	56.0	25.6	Mobile, Ala.	Vancouver, B. C.	Steel, general	8,413	7,611	5,450
Willfaro	7	20.50	8	7.25	8	15.15	8	18.15	American	Williams S. S. Line	386.8	52.2	22.0	Norfolk, Va.	Seattle, Wash.	General	5,730	5,684	4,070
Pennsylvanian	7	21.10	8	8.30	8	15.24	8	16.35	American	Amer.-Hawaiian Line	407.7	53.7	20.0	Boston, Mass.	Tacoma, Wash.	General	2,430	7,107	5,041
Walter A. Luckenbach	8	3.00	8	8.55	8	16.09	8	17.00	American	Luckenbach Line	446.5	56.1	24.0	Boston, Mass.	Tacoma, Wash.	General	5,467	8,785	6,567
Calmar	8	3.18	8	9.55	8	17.50	8	18.55	American	Calmar S. S. Corp.	384.6	51.2	27.0	Baltimore, Md.	Seattle, Wash.	Steel, general	8,207	6,347	4,453
Svealand [2]	8	6.10	8	10.05	8	16.59	8	23.53	Swedish	Ore S. S. Corp.	572.0	72.0	20.0	Baltimore, Md.	Cruz Grande, Chile	Ballast		15,425	4,421
Canadolite [1]	7	23.58	8	10.40	8	18.34	9	8.24	British	Imperial Oil Co.	510.9	68.2	23.6	Montreal, Canada	Talara, Peru	Ballast		11,556	7,658
Leon XIII	7	10.25	8	12.30	8	19.40	8	20.48	Spanish	Spanish Line	410.0	46.5	22.3	Barcelona, Spain	Valparaiso, Chile	General	388	5,521	3,729
West Katan	8	13.25	8	13.45	8	21.04	8	22.05	American	Calif. & East'n S.S. Co.	410.5	54.3	19.0	Philadelphia, Pa.	Tacoma, Wash.	General	3,822	6,573	4,916
Santa Teresa	8	20.10	9	6.10	9	12.52	9	17.20	American	Grace Line	360.2	51.6	23.5	New York, N. Y.	Talcahuano, Chile	General	2,622	5,726	4,086
City of Batavia	8	22.40	9	6.30	9	13.53	9	15.30	British	Amer. & Aust. Line	425.0	53.0	20.0	New York, N. Y.	Dunedin, N. Z.	General	3,056	6,488	4,680
Tilthorn	9	00.40	9	7.55	9	14.38	9	15.45	Norwegian	DuPont de Nemours	420.2	53.9	14.3	Norfolk, Va.	Tocopilla, Chile	Ballast		6,591	4,730
Quebec City	9	5.00	9	7.25	9	15.14	9	16.50	British	Rearden-Smith Line	415.0	54.3	24.10	Houston, Texas	Yokohama, Japan	General	7,300	7,004	5,406
Rio Diamante	9	4.45	9	10.25	9	17.42	9	19.00	British	Thomson S. S. Co.	400.0	56.0	26.2	Port Arthur, Texas	Shanghai, China	Oil	7,200	6,359	4,583
Oropesa	8	16.40	9	11.10	9	18.46	9	20.00	British	Pacific Steam Nav. Co.	552.0	66.0	23.9	Liverpool, England	Talcahuano, Chile	General	3,889	14,827	10,630
Buffalo Bridge	9	11.50	9	12.05	9	19.52	9	21.00	American	Charles Nelson Line	324.0	46.2	19.0	Baltimore, Md.	San Francisco, Cal.	General	1,593	3,985	2,630
Corinto	7–23	20.15	9	12.35	9	20.36	9	21.55	American	Panama Mail S. S. Co.	261.0	40.0	17.6	Cristobal, C. Z.	San Francisco, Cal.	General	2,109	2,352	1,549
Atlantic Sun [1]	9	14.15	9	14.35	9	21.40	13	22.45	American	Sun Oil Co.	429.3	59.2	19.0	Tampa, Fla.	Los Angeles, Calif.	Ballast		7,568	5,283
Sutermco	9	19.40	9	20.05	10	9.36	10	12.35	American	Transmarine Lines	324.0	46.2	19.0	Newark, N. J.	Seattle, Wash.	General	3,005	3,984	2,628
Amerikaland [2]	9	23.05	10	6.10	10	13.32	10	19.00	Swedish	Ore S. S. Corp.	561.0	72.0	23.0	Baltimore, Md.	Cruz Grande, Chile	Ballast		15,560	4,496
Cleveland [4]	9	16.25	10	6.07	10	14.15			American	U. S. Navy	292.0	44.0	17.8	Nicaragua	Balboa, C. Z.				
President Van Buren	10	5.50	10	7.08	10	14.44	10	21.05	American	Dollar Line	502.0	62.0	28.0	New York, N. Y.	San Francisco, Cal.	General	5,212	12,023	8,495
City of Wellington	10	1.05	10	7.40	10	15.28	10	16.30	British	Ellerman-Hall Line	410.0	55.0	27.0	Sydney, C. B.	Shanghai, China	General	6,680	7,012	5,145
Pacific President [2]	9	4.50	10	9.28	10	15.45	10	16.35	British	Furness, Withy & Co.	450.0	60.6	20.0	Glasgow, England	Vancouver, B. C.	General, bananas	1,955	10,086	7,226
Flottbek	10	8.10	10	10.10	10	16.52	10	18.00	German	Knohrand Burchard	280.0	40.0	13.0	Philadelphia, Pa.	Guaymas, Mexico	Ballast		2,221	1,469
Uribe	1	19.00	10	10.15	10	17.56	10	19.16	Colombian	Estrada G. Hermanos	227.4	31.7	14.6	Cristobal, C. Z.	Buenaventura, Col.	General	1,200	1,154	663
El Grillo [1]	10	6.20	10	11.05	10	18.04	10	19.15	British	Imperial Oil Co.	440.0	57.6	21.0	Quebec, Canada	Talara, Peru	Ballast		7,468	5,042
Francis E. Powell [1]	10	11.25	10	11.35	10	18.45	11	00.08	American	Atlantic Refining Co.	431.0	59.2	20.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,860	5,101
Cerigo	4	19.30	10	12.20	10	19.47	10	21.05	German	Hamburg-AmericanLine	227.0	34.0	13.3	Cristobal, C. Z.	Buenaventura, Col.	General	357	1,572	1,011
W. R. Chamberlin, Jr.	10	23.55	10	12.30	10	19.16	10	20.25	American	Little River Redwood	288.8	44.6	15.8	Humacao, P. R.	San Francisco, Cal.	Ballast		2,515	1,443
Aladdin [1]	10	12.40	10	14.10	10	20.50	10	21.53	American	Standard Transp. Co.	435.0	56.2	20.0	Providence, R. I.	Los Angeles, Calif.	Ballast		7,408	5,112
Martha [2]	10	13.55	10	14.30	10	21.53	10	23.45	Norwegian	H. C. Stevenson	183.3	30.0	10.0	Covenas, Colombia	Buenaventura, Col.	Cattle	150	780	504
Guayaquil	10	6.00	11	6.14	11	13.50	11	15.35	American	Panama R. R. S. S. Line	251.0	43.6	20.0	New York, N. Y.	Guayaquil, Ecuador	General	1,382½	2,874	1,944
Makalla	10	23.30	11	6.20	11	13.11	11	14.45	British	T. & J. Brocklebank	469.6	58.3	24.0	Philadelphia, Pa.	Fremantle, Austra.	General	4,189	7,445	4,910
Cherry Branch	11	4.00	11	7.15	11	14.11	11	15.40	British	F. & W. Ritson.	400.5	51.9	18.6	Liverpool, England	Corral, Chile	General	1,934	5,403	3,960
Pacific Redwood	11	5.10	11	7.10	11	15.10	11	16.40	American	Dimon S. S. Corp	409.5	54.2	19.0	New York, N. Y.	Tacoma, Wash.	General	4,976	6,537	4,841
Canadian Transporter	11	6.50	11	8.10	11	15.52	12	00.40	British	Can. Nat. Steamships	400.0	52.4	20.10	Montreal, Canada	Dunedin, N. Z.	General	3,600	6,228	4,491
Javanese Prince [2]	11	10.05	11	10.15	11	16.16	11	17.10	British	Furness, Withy & Co.	441.0	60.0	25.0	New York, N. Y.	Manila, P. I.	General	6,036	9,240	6,145
Paul Shoup [1]	11	14.50	11	15.00	11	21.25	11	22.55	American	Associated Oil Co.	424.0	58.0	22.0	Philadelphia, Pa.	San Francisco, Cal.	Ballast		7,333	5,182
Larry Doheny [1]	11	17.20	11	18.00	12	10.34	12	11.48	American	Richfield Oil Co.	430.0	59.2	18.6	New York, N. Y.	Los Angeles, Calif.	Ballast		7,494	5,181

[1] Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
W. H. Libby [3]	4	10.40	5	6.12	5	13.50	5	13.50	American	Standard Shipping Co.	462.4	60.2	27.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	10,472	8,461	6,104
Oyleric [1]	4	22.05	5	7.10	5	15.20	5	20.10	British	Andrew Weir & Co.	420.3	54.6	26.6	Los Angeles, Calif.	Manchester, Eng.	Gasoline	8,462	6,397	4,358
Boskoop	4	18.45	5	8.05	5	16.10	5	22.45	Dutch	Royal Neth. S. S. Co.	416.0	58.0	27.0	Corral, Chile	Hamburg, Germany	Nitrates, general.	8,304	7,817	6,097
Sucarseco	4	21.00	5	8.55	5	16.50	5	16.50	American	Transmarine Lines	324.0	46.2	23.0	Aberdeen, Wash.	Newark, N. J.	Lumber	4,100	3,984	2,628
Buenos Aires	5	6.45	5	9.51	5	17.10	5	23.10	Swedish	Johnson Line	440.0	56.0	26.0	San Francisco, Cal.	London, England	General	7,665	7,591	5,661
Asuka Maru	4	21.45	5	15.00	5	22.05	6	12.21	Japanese	Nippon Yusen Kaisha	440.0	57.0	25.0	Iloilo, P. I.	New York, N. Y.	Sugar, general.	7,816	8,139	5,389
Denver [6]	7-25	6.00	5	15.50	6	11.15	7	5.00	American	U. S. Navy	292.0	44.0	....	Balboa, C. Z.	Cristobal, C. Z.	....	....	....	....
Martha	5	17.05	6	6.36	6	14.10	6	18.00	Norwegian	Chr. Hannevig	183.0	30.1	10.0	Buenaventura, Col.	Covenas, Col.	Ballast	....	780	504
Perene	5	21.00	6	6.40	6	14.45	7	00.40	Peruvian	Peruvian Line	270.0	39.0	17.0	Callao, Peru	New York, N. Y.	Specie, general.	2,112	2,168	1,529
Pacific Commerce [7]	6	1.40	6	7.19	6	14.40	6	14.40	British	Furness, Withy & Co.	420.0	54.0	25.0	Longview, Wash.	Immingham, Eng.	Railroad ties	7,530	6,996	5,346
Teno	6	2.20	6	8.02	6	15.48	6	22.35	Chilean	Chilean Line	422.8	56.2	26.6	Valparaiso, Chile	New York, N. Y.	General	4,942	7,764	4,672
Induna	6	11.00	6	11.40	6	19.20	6	21.30	British	Maclay & McIntyre	402.0	52.0	24.6	Vancouver, B. C.	Boston, Mass.	Lumber	6,700	5,634	4,172
King Arthur [7]	6	11.20	6	12.18	6	19.40	6	20.30	British	Dodd, Thompson & Co	400.7	54.8	22.6	Vancouver, B. C.	Capetown, S. Africa	Lumber, general.	6,428	6,284	4,335
Cali	6	11.30	6	12.29	6	20.05	7	5.55	German	North German Lloyd	228.1	32.9	13.6	Guayaquil, Ecu'dor	Pto. Colombia, Col.	General	310	1,105	698
Rochester [6]	....	....	6	15.49	7	11.35	8	6.00	American	U. S. Navy	384.0	64.9	....	Balboa, C. Z.	Cristobal, C. Z.	....	....	....	....
Vimeria [1]	6	16.20	7	6.56	7	13.35	7	13.35	British	Gow, Harrison & Co.	410.1	54.5	22.9	Los Angeles, Calif.	Land's End, Eng. [10]	Gasoline	7,454	6,084	4,375
Kuma Maru	6	15.10	7	7.35	7	15.15	8	5.25	Japanese	Nippon Yusen Kaisha	405.0	53.0	24.0	Iloilo, P. I.	New York, N. Y.	General	7,318	7,025	5,055
Marore	7	1.35	7	8.00	7	16.50	7	16.50	American	Ore S. S. Corp	550.3	72.2	34.9	Cruz Grande, Chile	New York, N. Y.	Iron ore	20,000	15,551	4,297
Finn [7]	7	5.30	7	8.44	7	15.45	7	18.20	Swedish	Cia Mari. Colombiana	271.0	41.0	13.1	Buenaventura, Col.	New York, N. Y.	Coffee in sacks	151	2,472	1,513
Grace Harwar [8]	6	19.35	7	9.48	7	19.15	8	8.35	Finnish.	H. Clarkson & Co., Ltd.	266.7	39.1	21.6	Callao, Peru	Wilmington, N. C.	Guana	2,950	1,839	1,687
Harry Luckenbach	7	9.55	7	10.35	7	17.45	7	17.45	American	Luckenbach Line	448.9	60.2	29.6	Portland, Oreg.	Boston, Mass.	Lumber, general.	9,016	9,262	6,853
Pacific Reliance [7]	7	10.20	7	11.05	7	18.15	7	18.15	British	Furness, Withy & Co.	435.0	60.2	27.0	Vancouver, B. C.	Glasgow, Scotland	General	7,801	9,644	6,967
Buenos Aires	7	3.00	7	12.18	7	19.55	9	2.10	Spanish.	Spanish Line	407.5	47.9	23.6	Valparaiso, Chile	Barcelona, Spain	General	1,818	5,624	3,844
W. L. Steed [1]	7	23.00	8	5.58	8	13.45	8	13.45	American	Huasteca Petroleum Co	416.8	56.1	26.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline	8,900	6,751	4,795
Norfolk	7	15.30	8	6.44	8	14.50	8	14.50	British	Federal Steam Nav. Co	520.0	64.2	22.0	Port Chalmers, N.Z.	Liverpool, England	Frozen, general.	6,302	12,963	9,291
Massmar	7	16.30	8	7.06	8	16.10	8	16.10	American	Calmar S. S. Corp	285.0	51.2	26.0	Aberdeen, Wash.	Philadelphia, Pa.	Lumber	6,968	6,242	4,471
Texan	7	18.30	8	7.58	8	17.10	8	17.10	American	Amer.-Hawaiian Line	471.0	57.2	27.0	Portland, Oreg.	Boston, Mass.	General	7,543	9,154	6,906
El Lobo [1]	7	18.45	8	8.19	8	17.40	8	18.05	British	C. T. Bowring & Co.	385.2	51.0	23.0	La Libertad, E'dor	Philadelphia, Pa.	Crude oil	6,197	4,851	3,326
Arizona	7	21.30	8	8.57	8	18.35	10	14.25	British	French Line	425.0	54.8	24.0	Portland, Oreg.	Havre, France	General	7,611	7,097	4,936
Acajutla	7	22.40	8	9.30	8	18.40	....	....	British	Pacific Steam Nav. Co	215.7	32.5	13.8	Champerico, Guat.	Cristobal, C. Z.	([11])	320	1,273	706
Eastern Knight	8	6.00	8	10.02	8	19.15	8	19.15	American	Arrow Line	415.0	56.7	27.6	Portland, Oreg.	New York, N. Y.	Lumber, general.	7,742	7,643	5,657
Spondilus [1] [7]	8	15.45	9	6.26	9	13.50	9	13.50	British	Anglo-Saxon Pet. Co.	440.4	59.5	25.0	Los Angeles, Calif.	Land's End, Eng. [10]	Gasoline	8,890	7,915	4,797
San Claudio [1] [9]	3	21.58	9	6.53	9	15.00	9	15.00	British	Eagle Oil Transp. Co.	305.0	51.2	10.3	Balboa, C. Z.	Maracaibo, Vene'la	Ballast	....	....	....
Moerdijk	8	19.20	9	7.21	9	16.22	9	22.55	Dutch	Holland-American Line	472.6	61.1	....	Victoria, B. C.	Antwerp, Belgium	General	9,467	9,165	7,056
General Smuts	8	20.45	9	7.40	9	18.00	10	00.10	British	W. L. Comyn & Co.	386.7	52.8	20.6	Vancouver, B. C.	Hartlepool, Eng.	Wheat, lumber	6,537	5,466	3,841
Collegian	8	21.00	9	7.56	9	17.05	9	23.25	British	T. & J. Harrison	455.4	56.2	25.0	Vancouver, B. C.	London, England	General	8,316	7,712	5,437
Fort Armstrong	9	5.25	9	8.47	9	18.35	9	18.35	American	Charles Nelson & Co.	324.0	46.2	24.0	Seattle, Wash.	Baltimore, Md.	Lumber, copper	4,700	3,984	2,628

[3] Tanker. [6] Cruiser. [7] Motor ship. [8] Sailing ship. [9] August 3d for drydocking only. [10] For orders. [11] Coffee, hides, and sugar.

Esparta	9	10.25	9	11.22	9	18.35	10	17.05	American	United Fruit Co	330.6	44.6	17.0	San Francisco, Cal.	Port Limon, C. R.	General	273	3,673	2,367
Charles R. McCormick	9	11.50	9	12.44	9	19.55	9	19.55	American	Munson-McCor'k Line	401.0	53.2	26.4	San Francisco, Cal.	Philadelphia, Pa.	Lumber, general.	6,100	7,082	5,167
Sugillenco	9	11.55	9	13.50	9	21.30	9	21.30	American	Transmarine Lines	324.0	46.2	23.0	Tacoma, Wash.	Pt. Newark, N. J.	Lumber	3,912	3,982	2,612
Launch			9						American	U. S. Navy				Balboa, C. Z.	Cristobal, C. Z.				
Oiltrader [1]	9	8.50	10	6.02	10	13.55	10	13.55	British	British Oil Shipp. Co.	410.0	53.6	24.6	San Francisco, Cal.	Land's End, Eng. [16]	Gasoline	8,021	5,928	3,919
Gargoyle [1]	10	00.10	10	6.37	10	17.40	10	17.40	American	Vacuum Oil Co.	425.0	57.0	27.5	San Francisco, Cal.	Providence, R. I.	Crude gas oil	9,986	7,510	4,989
Eagle [1]	10	2.30	10	7.30	10	18.10	10	18.10	American	Standard Transp. Co.	410.0	56.0	27.6	Los Angeles, Calif.	New York, N. Y.	Gas oil	8,257	8,201	6,226
Orita	10	5.00	10	8.17	10	16.05	11	00.10	British	Pacific Steam Nav. Co.	485.0	58.0	28.9	Coronel, Chile	Liverpool, England	General	7,096	9,936	6,226
Mobile City	10	00.20	10	8.43	10	18.40	10	18.40	American	Isthmian S. S. Lines	395.5	55.0	25.4	Seattle, Wash.	Portland, Maine	Lumber, general.	6,780	7,330	5,241
George Washington [7]	10	2.15	10	9.12	10	19.30	12	00.10	Norwegian	Fred Olsen & Co.	425.5	55.0	29.4	Vancouver, B. C.	Oslo, Norway	Grain, general	9,250	7,505	5,627
Santa Tecla	10	7.30	10	9.23	10	20.05	10	22.05	American	N. O. & S. A. S. S. Co.	298.6	40.0	21.0	Mollendo, Peru	New Orleans, La.	([14])	3,530	2,832	1,803
Camden [2]	10	8.54	10	10.08	10	20.12	10	22.45	American	United Fruit Co.	419.5	56.5	26.0	Los Angeles, Calif.	Pto. Castilla, Hond	Fuel oil	8,998	6,977	4,959
Mississippi	10	9.05	10	10.36	10	21.50	11	13.14	French	French Line	405.0	52.6	26.4	Valparaiso, Chile	Liverpool, England	General	8,088	7,156	4,984
Hawaiian	10	14.30	10	15.09	10	22.15	10	22.15	American	Amer.-Hawaiian Line	404.0	53.9	27.0	Seattle, Wash.	Boston, Mass.	General	7,148	6,766	4,767
Steelmaker	10	21.12	11	6.18	11	13.30	11	14.40	American	Isthmian S. S. Lines	385.5	55.0	23.0	Medan, Sumatra	New York, N. Y.	([15])	4,400	7,330	5,245
Utacarbon [1]	11	3.30	11	6.59	11	15.50	12	6.15	American	Union Oil Co. of Calif.	435.9	56.0	29.0	Los Angeles, Calif.	Port Limon, C. R.	Fuel oil	10,715	7,482	5,209
Dunrobin	11	4.30	11	8.03	11	17.25	11	23.25	British	Glen & Co., Glasgow	404.9	53.0	25.0	Vancouver, B. C.	New York, N. Y.	Lumber	7,200	5,651	4,076
S-14 [12]	11		11	8.55	11	15.55			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-15 [12]	11		11	8.55	11	15.55			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-17 [12]	11		11	8.59	11	15.55			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
Bagaduce [13]	10	13.18	11	9.01	11	15.55			American	U. S. Navy	150.0	28.0		Balboa, C. Z.	Cristobal, C. Z.				
Queenmoor	11	9.55	11	10.45	11	18.35	11	21.20	British	W. Runciman & Co.	405.0	53.0	24.9	Vancouver, B. C.	Hull, England	Wheat, lumber	7,767		
Cauca [7]	11	12.45	11	13.36	11	21.50			Colombian	National Nav. Co.	107.2	22.9	11.0	Buenaventura, Col.	Cristobal, C. Z.	([16])	271	238	163
Yoseric	11	16.25	11	17.25	12	11.49	12	13.10	British	Bank Line, Ltd.	400.0	52.4	25.0	Makatea, Tuamotu Archipelago.	Landskrona, Swed.	Phosphates	7,200		

[1] Tanker. [12] Submarine. [13] Tug. [14] Nitrates, sheepskins, and antimony ores. [15] Chrome ore and rubber seed. [16] Coffee, hides, and platinum.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
August 5	Napierian	Leyland Line	Liverpool via wayports.
August 5	Ulua	United Fruit Co	Port Limon, Costa Rica.
August 5	Bowden	United Fruit Co	New Orleans via wayports.
August 5	Inapaquina [17]	United Fruit Co	Colon, R. P.
August 6	Toloa	United Fruit Co	New York via Habana.
August 6	Anachucuna [17]	United Fruit Co	Colon, R. P.
August 7	Pellerin de la Touche	French Line	Havre via wayports.
August 7	Crynssen	Royal Netherlands S. S. Co	Amsterdam via wayports.
August 2	Linda S. [18]	Surgeon Brothers	Colon, R. P.
August 7	Carmania [18]	R. Feuillebois	Colon, R. P.
August 8	Suriname	United Fruit Co	New Orleans, La.
August 8	Santa Marta	United Fruit Co	New York via Kingston.
August 9	Coppename	United Fruit Co	Port Limon, Costa Rica.
August 9	Favorita	American Fruit & S. S. Co	New Orleans, La.

* DEPARTURES.

Date.	Vessel	Line.	For—
August 5	Inapaquina [17]	United Fruit Co	Colon, R. P.
August 5	Ulua	United Fruit Co	New York via Habana.
August 5	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
August 6	Bowden	United Fruit Co	Mobile, Ala.
August 6	Heredia	United Fruit Co	New Orleans via wayports.
August 7	Napierian	Leyland Line	Port Limon, Costa Rica.
August 7	Lizzie D. Peabody [18]	M. P. Martinez	Colon, R. P.
August 8	Linda S. [18]	Surgeon Brothers	Bluefields, Nicaragua.
August 8	Crynssen	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
August 8	Toloa	United Fruit Co	Port Limon, Costa Rica.
August 9	Coppename	United Fruit Co	New Orleans, La.
August 9	Pellerin de la Touche	French Line	Havre via wayports.
August 9	Favorita	American Fruit & S. S. Corp.	San Blas, R. P.
August 10	Anachucuna [17]	United Fruit Co	Colon, R. P.

[17] Motor boat. [18] Motor schooner. * Other than ships passing through the Canal.

(Continued on page 20, column 2.)

Commercial Traffic Through the Panama Canal in July, 1928, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of July, 1928, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for July, 1927, and 1926. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations.

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	82	418,535	321,391	513,325	321,461	$365,802.96	220,004
Europe to west coast of United States:							
British	19	86,919	66,646	108,761	65,924	65,366.85	18,095
Danish	1	4,744	4,318	4,500	2,747	3,415.68	.....
Danzig	1	6,127	5,268	8,939	5,007	4,411.44	.....
French	1	4,635	4,024	6,477	3,488	3,337.20	.....
German	3	18,990	12,733	21,734	13,095	15,916.25	16,507
Norwegian	4	19,356	16,740	27,888	16,738	16,091.77	1,006
United States	2	12,216	9,142	14,867	9,113	9,541.11	6,600
Totals	31	152,987	118,871	193,166	116,112	118,080.30	42,208
Europe to west coast of South America:							
Belgian	1	6,211	4,522	7,130	4,013	5,652.50	7,300
British	5	30,880	24,255	40,603	25,060	30,318.75	14,574
Danish	1	6,024	5,036	8,278	5,064	4,337.28	.....
Danzig	1	6,338	5,236	8,956	5,041	4,563.36	.....
Dutch	2	9,761	5,445	9,235	5,616	6,806.25	7,253
French	2	9,186	7,511	12,205	7,577	9,388.75	2,773
German	4	19,453	14,019	22,925	14,123	17,523.75	11,467
Norwegian	1	3,879	2,962	4,854	2,950	3,702.50	3,302
Spanish	1	3,844	3,017	5,205	3,226	3,771.25	306
Swedish	1	1,513	1,307	1,600	1,054	1,089.36	.....
Yugoslav	2	8,699	7,140	11,344	7,111	8,925.00	14,061
Totals	21	105,788	80,450	132,335	80,835	96,078.75	61,036
East coast of United States to west coast of South America:							
British	3	9,694	7,553	13,431	8,020	9,441.25	6,621
Chilean	2	7,436	5,980	10,875	6,236	7,475.00	3,228
Norwegian	1	3,160	2,189	3,664	2,178	2,736.25	2,455
Peruvian	1	1,529	1,483	2,155	1,169	1,834.80	2,077
Swedish	1	4,421	3,743	15,331	4,377	3,183.12	.....
United States	10	44,970	36,825	64,344	36,920	36,219.84	15,054
Totals	18	71,210	57,773	109,800	58,900	60,890.26	29,435
East coast of United States to Far East:							
British	6	31,817	21,451	34,568	21,166	26,813.75	43,803
Japanese	4	21,127	18,679	26,895	17,174	22,975.60	33,495
Norwegian	2	9,482	6,594	10,895	6,630	8,242.50	16,573
United States	5	27,858	19,206	31,059	19,046	24,007.50	42,580
Totals	17	90,284	65,930	103,417	64,016	82,039.35	136,451
Europe to west coast Canada:							
British	5	30,159	20,063	32,777	19,156	24,155.19	6,925
Danish	1	5,341	4,257	6,650	4,247	5,321.25	2,853
Dutch	2	12,678	10,266	16,039	10,236	12,832.50	4,723
French	2	9,770	6,608	11,141	6,774	8,260.00	7,656
German	2	12,633	7,944	13,422	8,140	9,930.00	6,614
Italian	1	5,867	4,372	7,057	4,455	5,465.00	1,419
Swedish	1	5,122	3,129	5,293	4,046	3,687.84	.....
Totals	14	81,570	56,639	92,379	57,054	69,651.78	30,190
Cristobal, C. Z., to west coast South America:							
Colombian	4	1,081	1,026	1,722	1,027	1,263.70	791
Dutch	2	1,484	588	1,560	646	735.00	124
German	4	3,359	2,432	4,508	2,459	3,040.00	896
Peruvian	2	5,356	2,495	8,049	4,187	3,118.75	298
United States	2	9,436	8,649	15,333	8,671	6,829.83	.....
Totals	14	20,716	15,190	31,172	16,990	14,987.28	2,199

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of United States to Australasia:							
British	6	31,888	22,503	35,972	22,800	$28,128.75	33,647
United States	1	5,450	3,465	5,687	3,450	4,331.25	7,430
Totals	7	37,338	25,968	41,659	26,250	32,460.00	41,077
Europe to Australasia:							
British	6	48,407	36,171	58,243	36,852	45,213.75	40,350
Swedish	1	6,098	3,286	6,059	4,311	4,107.50	2,506
Totals	7	54,505	39,457	64,302	41,163	49,321.25	42,856
East coast of United States to west coast Canada:							
British	2	11,520	9,488	13,102	9,199	11,860.00	8,105
United States	4	22,692	17,750	28,235	17,743	22,187.50	26,893
Totals	6	34,212	27,238	41,337	26,942	34,047.50	34,998
East coast of Central America to west coast United States:							
United States	6	16,310	14,595	23,439	14,436	16,574.93	3,852
Around the World:							
Japanese	1	7,354	5,958	9,455	5,902	7,447.50	2,318
United States	4	29,463	22,152	36,634	22,020	27,690.00	13,779
Totals	5	36,817	28,110	46,089	27,922	35,137.50	16,097
Foreign vessels in ballast—United States intercoastal:							
British	3	14,136	8,512	13,786	8,447	9,936.37	.....
Japanese	1	4,704	4,338	5,831	4,227	3,386.88	.....
Totals	4	18,840	12,850	19,617	12,674	13,323.25	.....
West Indies to west coast of United States:							
British	3	13,163	11,099	18,175	10,922	10,677.28	3,000
West Indies to west coast of South America:							
Cuban	1	194	194	176	136	242.50	20
United States	2	136	215	394	225	146.40	.....
Totals	3	330	409	570	361	388.90	20
Cristobal, C. Z., to west coast of Central America:							
British	2	1,328	1,252	2,308	1,256	1,543.90	2,008
Norwegian	1	606	485	855	482	606.25	945
Totals	3	1,934	1,737	3,163	1,738	2,150.15	2,953
East coast of United States to Philippine Islands:							
British	1	6,089	4,970	7,786	4,934	6,212.50	5,742
United States	1	6,036	4,828	7,597	4,754	6,035.00	8,123
Totals	2	12,125	9,798	15,383	9,688	12,247.50	13,865
East coast of Canada to west coast South America:							
British	2	16,219	13,454	22,814	13,409	11,677.68	.....
East coast of Canada to Australasia:							
British	2	10,598	8,612	13,416	8,372	10,765.00	9,721
East coast of Central America to Australasia:							
British	2	9,158	5,932	9,497	5,929	7,415.00	13,016
East coast of South America to west coast Canada:							
Norwegian	1	4,722	2,728	4,624	2,765	3,410.00	4,855
United States	1	4,989	3,517	5,550	3,517	4,396.25	4,902
Totals	2	9,711	6,245	10,174	6,282	7,806.25	9,757
South American intercoastal:							
Colombian	1	1,506	1,199	2,055	1,251	1,498.75	2,275
Norwegian	1	504	433	732	391	541.25	150
Totals	2	2,010	1,632	2,787	1,642	2,040.00	2,425

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Cristobal, C. Z., to west coast of United States:							
Panaman	1	2,606	1,384	3,644	2,594	$1,730.00	2,728
United States	1	5,199	4,315	7,059	4,349	3,743.28	.....
Totals	2	7,805	5,699	10,703	6,943	5,473.28	2,728
West Indies to Balboa, C. Z.:							
British	[1] 2	2,865	2,721	5,927	2,627	[1] 5,976.25	5,835
Europe to west coast of Central America:							
German	2	7,104	5,641	9,261	5,702	7,051.25	5,348
East coast of United States to Balboa, C. Z.:							
British	1	3,326	2,872	4,800	2,949	2,394.72	.....
United States	1	4,264	3,468	5,580	3,379	4,335.00	255
Totals	2	7,590	6,340	10,380	6,328	6,729.72	255
East coast of United States to west coast of Central America:							
Danish	1	1,469	1,188	1,970	1,206	1,057.68	.....
East coast of United States to Hawaiian Islands:							
United States	1	1,740	1,542	2,647	1,542	1,927.50	2,383
Europe to Hawaiian Islands:							
Swedish	1	5,533	3,430	5,554	4,225	4,287.50	7,538
Europe to Far East:							
British	1	5,521	4,641	7,435	4,407	3,975.12	.....
Canadian intercoastal:							
British	1	4,182	3,318	5,757	3,554	4,147.50	2,374
East coast of Canada to west coast United States:							
British	1	5,867	3,468	5,677	3,510	4,335.00	4,066
East coast of Canada to Far East:							
British	1	4,129	3,258	5,334	3,242	4,072.50	2,473
West Indies to west coast of Central America:							
British	1	152	102	524	197	109.44	.....
Gatun Lake, C. Z., to Balboa, C. Z.:							
United States	[2] 1	67	67	([2])	([2])	80.40	.....
Cristobal, C. Z., to Balboa, C. Z.:							
United States	[3] 1	20	20	([3])	([3])	15.00	.....
East coast of United States to Gatun Lake, C. Z.:							
Norwegian	1	681	664	1,182	693	817.20	.....
Grand totals, July, 1928	272	1,269,085	965,479	1,580,367	967,284	1,103,618.21	748,160
Grand totals, July, 1927	280	1,323,649	1,032,027	1,686,511	1,031,969	1,149,465.16	739,656
Grand totals, July, 1926	241	1,156,000	906,259	1,490,562	909,056	1,001,504.93	686,354

[1] Includes naval vessel of 5,150 displacement tons.
[2] Barge having no registered tonnage.
[3] Yacht having no registered tonnage.

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	85	437,688	340,897	548,131	340,506	$425,211.55	643,926
West coast of South America to Europe:							
British	9	44,482	35,541	58,098	35,974	44,426.25	57,300
Dutch	2	10,864	6,890	11,879	6,698	8,612.50	17,479
French	1	4,187	3,353	5,505	3,366	4,191.25	6,182
German	8	39,036	29,977	48,333	30,065	37,471.25	61,926
Italian	1	9,373	5,223	11,669	6,779	6,528.75	3,845
Norwegian	2	7,167	4,722	7,930	4,642	5,902.50	12,424
Spanish	1	2,827	2,459	4,349	2,565	3,073.75	728
Totals	24	117,936	88,165	147,763	90,089	110,206.25	159,884

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to east coast United States:							
British	4	15,665	11,822	20,655	12,527	$14,777.50	17,293
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,613
German	2	3,726	2,234	3,907	2,207	2,792.50	908
Swedish	2	8,917	7,486	33,676	8,762	9,357.50	42,500
United States	15	62,706	51,395	87,309	51,340	64,038.20	129,257
Totals	24	95,719	76,403	152,857	78,812	95,298.20	192,571
West coast Canada to Europe:							
British	10	50,420	35,089	57,284	35,143	43,861.25	81,440
Danish	1	4,268	2,634	4,289	2,675	3,292.50	6,106
Dutch	2	13,479	10,966	17,703	10,976	13,707.50	18,907
French	1	4,464	2,948	4,745	2,969	3,685.00	7,534
German	3	15,439	10,201	16,629	10,245	12,751.25	21,652
Italian	2	11,747	8,739	14,122	8,920	10,923.75	17,788
Norwegian	1	5,854	4,679	7,468	4,724	5,848.75	8,885
Swedish	1	4,919	2,878	4,960	3,665	3,597.50	5,700
Totals	21	110,590	78,134	127,200	79,317	97,667.50	168,012
West coast of United States to Europe:							
British	5	21,187	18,214	29,889	18,028	22,767.50	37,143
Danish	1	4,418	3,585	5,702	3,583	4,481.25	8,455
French	1	5,563	4,282	6,863	4,287	5,352.50	9,511
German	1	6,344	3,826	6,780	4,057	4,782.50	7,321
Japanese	1	4,424	4,391	5,865	4,293	5,308.80	7,919
Norwegian	4	17,700	14,642	24,300	14,666	18,302.50	32,218
United States	4	25,857	19,308	31,047	19,145	24,135.00	41,568
Totals	17	85,493	68,248	110,446	68,059	85,130.05	144,135
West coast of South America to Cristobal:							
Colombian	4	1,081	1,026	1,722	1,027	1,263.70	870
Dutch	2	1,484	588	1,560	646	735.00	692
German	4	3,491	2,260	4,327	2,334	2,825.00	1,667
Peruvian	2	5,356	2,495	8,049	4,187	3,118.75	4,340
Totals	12	11,412	6,369	15,658	8,194	7,942.45	7,569
West coast of Canada to east coast United States:							
British	5	20,437	14,798	23,895	14,828	18,497.50	32,162
Danish	2	7,983	5,064	8,426	5,131	6,330.00	13,011
Norwegian	1	4,343	2,500	4,319	2,441	3,125.00	7,000
Totals	8	32,763	22,362	36,640	22,400	27,952.50	52,173
Australasia to Europe:							
British	5	37,504	29,236	46,796	29,732	36,545.00	22,422
Finnish	1	1,675	1,648	1,817	1,523	2,010.00	3,100
French	1	5,162	4,357	6,889	4,446	5,446.25	3,263
Totals	7	44,341	35,241	55,502	35,701	44,001.25	28,785
West coast United States to east coast of Central America:							
United States	5	14,169	12,627	20,211	12,557	15,730.70	10,904
West coast of Central America to Cristobal, C. Z.:							
British	3	2,063	1,900	3,436	1,906	2,353.90	1,159
Norwegian	1	606	485	855	482	606.25	565
Totals	4	2,669	2,385	4,291	2,388	2,960.15	1,724
Canadian intercoastal:							
British	3	13,947	9,661	15,920	9,788	12,076.25	18,536
West coast of South America to West Indies:							
British	[1] 2	.....	.....	.....	.....	[1] 1,585.00	.....
United States	1	115	75	419	201	82.80	.....
Totals	3	115	75	419	201	1,667.80	.....

[1] Naval vessels having a total of 3,170 displacement tons.

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Philippine Islands to east coast of United States:							
British	1	6,263	4,602	7,362	4,599	$5,752.50	9,263
Japanese	1	5,681	4,358	6,963	4,280	5,447.50	8,223
United States	1	6,612	4,973	7,587	4,808	6,216.25	10,000
Totals	3	18,556	13,933	21,912	13,687	17,416.25	27,486
West coast of United States to West Indies:							
British	1	3,430	3,188	5,203	3,199	3,985.00	7,055
United States	1	1,443	1,270	2,264	1,300	1,587.50	2,784
Totals	2	4,873	4,458	7,467	4,499	5,572.50	9,839
West coast of United States to Cristobal, C. Z.:							
United States	2	6,748	5,482	9,033	5,510	6,852.50	12,170
West coast of South America to east coast Canada:							
British	2	12,096	9,826	16,613	9,843	12,282.50	23,300
West coast of Central America to Europe:							
Norwegian	2	2,894	2,716	4,024	2,169	3,394.03	3,000
South American intercoastal:							
Colombian	1	1,506	1,199	2,055	1,251	1,084.32	.....
West coast of South America to Egypt:							
Yugoslav	1	3,412	2,800	4,296	2,781	3,500.00	6,931
West coast of South America to Africa:							
Belgian	1	4,792	4,142	6,511	4,172	5,177.50	8,141
Central American intercoastal:							
German	1	3,770	2,533	4,195	2,579	2,714.40	.....
West coast of Central America to West Indies:							
United States	1	1,824	1,342	2,247	1,348	1,313.28	.....
Australasia to east coast Canada:							
British	1	4,172	3,286	5,454	3,340	4,107.50	2,450
Hawaiian Islands to east coast of United States:							
United States	1	4,389	3,795	5,731	3,512	4,743.75	9,340
Hawaiian Islands to Cristobal, C. Z.:							
United States	1	20	20	20	14	15.00	.....
Balboa, C. Z., to Gatun Lake:							
Panaman	1	33	33	(1)	(1)	24.75	.....
Balboa, C. Z., to Cristobal, C. Z.:							
United States	1	169	169	(1)	(1)	126.75	.....
Balboa, C. Z., to West Indies:							
British	1	2,865	2,721	5,927	2,627	2,062.80	.....
Far East to east coast United States:							
British	1	5,815	4,921	7,900	4,880	6,151.25	5,494
Far East to West Indies:							
Norwegian	1	4,534	2,465	4,114	2,453	3,081.25	7,163
Gatun Lake to east coast of United States:							
Norwegian	[2] 1	[2] 681	[2] 664	[2] 1,182	[2] 693	[2] 817.20	[2] 262
Grand totals, July, 1928	237	1,049,310	806,408	1,342,537	812,677	1,005,464.98	1,543,795
Grand totals, July, 1927	229	1,083,306	851,111	1,385,744	853,689	1,066,050.83	1,710,812
Grand totals, July, 1926	215	998,821	786,109	1,285,166	794,331	979,214.74	1,499,173

[1] Barge having no registered tonnage. [2] This vessel entered the Canal at Cristobal and proceeded as far as Gatun Lake, where after loading a cargo of bananas she returned to Cristobal. As vessels transiting the Canal as far as Gatun Lake only, are entitled to return to Canal port of entry without payment of tolls for return voyage, the only item taken up in connection with this transit in the Pacific-to-Atlantic traffic statistics is the amount of cargo tonnage.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Notices to Mariners.

No. 414. THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 13, 1928.

The Pilot in Charge, Lighthouse Subdivision of The Panama Canal, has requested the following preliminary notice to be issued:

"PACIFIC OCEAN—PANAMA BAY.

"On or about September 15, 1928, the characteristic of the South Fraille Combination Gas and Whistling Buoy will be changed to the following:

"1 second light—3 seconds dark, a period of 4 seconds. (Signed) F. KARIGER, *Pilot in Charge.*"

M. L. WALKER,
Governor.

No. 416. THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 14, 1928.

The following appeared in Notice to Mariners, Washington, D. C., July 8th:

"Colombia—Puerto Colombia—Shoal depth. The Master of the German steamer *Orinoco* reports that his vessel, drawing 22¾ feet, took the ground about midway between Lafayette Rock Light Buoy and the wreck-marking Light Buoy, where the chart shows depths of 5½ to 6 fathoms.

"Approximate position: 11° 00′ 00″ N., 74° 59′ 30″ W."

M. L. WALKER,
Governor.

No. 418. THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 14, 1928.

The following appeared in Hydrographic Office, Notice to Mariners No. 31, dated August 4, 1928:

"West Indies—Virgin Islands—St. Thomas Island: Wreck gas buoy changed. On July 13, 1928, Grainton Wreck Gas Buoy was changed to show flashing green every 6 seconds, flash 1 second, eclipse 5 seconds, of 40 candlepower, 13 feet above the water. The buoy is spar shaped. Approximate position: 18° 16′ 45″ North, 65° 00′ 15″ West."

"Nicaragua—West Coast—Corinto Harbor—Nonexistence of shoal—Decreased depths: The Commanding Officer of the U. S. S. *Galveston* reports that a survey has failed to locate the 16-foot shoal about 650 yards 105° from Cardon Head Lighthouse, in the entrance to Corinto Harbor, the least depth found in this vicinity being 21 feet.

"Sawyer Bank is extending to the southward, the 30-foot curve being considerably southward of the present charted position.

"Soundings between buoy No. 6 and buoy No. 8 indicate considerable shoaling in this vicinity, the least depth found being 12 feet.

"Approximate position: 12° 28′ North, 87° 12′ West."

Quoted from H. O. Notice to Mariners No. 29:

"Panama—Gulf of Panama—Perlas Island—San Jose Island Light—Arc of visibility: The Commanding Officer of the U. S. S. *Niagara* reports that San Jose Light is visible over an arc of 226° from 274° to 150°.

"Approximate position: 8° 12′ 50″ N., 79° 07′ 55″ W."

M. L. WALKER,
Governor.

No. 421. THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 15, 1928.

* * * * * * *

The following appeared in Hydrographic Bulletin, August 8:

"*Guatemala, Honduras Bay, Cape Three Points Light, Position:* The new flashing white light every 6 seconds, recently established by the United Fruit Company at Cape Three Points, is located practically in the same position as the old light, in latitude 15° 56′ 44″ N., longitude 88° 35′ 35″ W., on H. O. Chart No. 1496."

M. L. WALKER,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending August 11, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Chateau Thierry	U. S. Government	August 2	August 3	52	31
Asuka Maru	Nippon Yusen Kaisha	August 4	August 5	600	.....
Kuma Maru	Nippon Yusen Kaisha	August 6	August 7	263	.....
Buenos Aires	Spanish Line	August 7	August 7	174	.....
Canadolite	Imperial Oil Co., Ltd.	August 8	August 9	.....	8
Colombia	Panama Mail S. S. Co.	August 8	August 8	13	.....
Cisneros	Colombian Government	August 7	August 9	.....	17
Corinto	Panama Mail S. S. Co.	August 9	August 9	.....	1

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.20 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessels furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessels to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of the tariff, and for handling lines in accordance with Item 4 of the tariff.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping, at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 13.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

Date.	Vessel.	Line.	From—
August 9	Banan	United Fruit Co	Mobile, Ala.
August 11	Cryssen	Royal Netherlands S. S. Co.	Port Limon, Costa Rica.
August 11	Favorita	American Fruit & S. S. Corp	San Blas, R. P.
August 11	Inapaquina [19]	United Fruit Co	Colon, R. P.
August 11	Cartago	United Fruit Co	New Orleans via Habana.
August 11	Banan	United Fruit Co	Perme, R. P.
August 11	Meroian	Leyland Line	Liverpool via wayports.
August 11	Anacheuma [19]	United Fruit Co.	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
August 10	Banan	United Fruit Co	Perme, R. P.
August 10	Santa Marta	United Fruit Co	New York via wayports.
August 10	Suriname	United Fruit Co	Puerto Colombia.
August 11	Favorita	American Fruit & S. S. Corp.	New Orleans, La.
August 11	Inapaquina [19]	United Fruit Co	Colon, R. P.
August 11	Anacheuma [19]	United Fruit Co	Colon, R. P.
August 11	Cryssen	Royal Netherlands S. S. Co	Amsterdam via wayports.

[19] Motor boat.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
August 8	Chiman [20]	Isthmian Land & Fruit Co.	El Real, R. P.
August 8	A. B. Obarrio [21]	Pacific Fruit Co	Bayano River, R. P.
August 8	Dos Hermanos [21]	A. Valdez	Bayano River, R. P.
August 8	Killerig [22]	Lindsay, Swan & Hunter	Cape Mala, R. P.
August 10	Vinland	O. A. Knutsen & Co	Seattle, Wash.

Date.	Vessel.	Line.	For—
August 8	A. B. Obarrio [21]	Pacific Fruit Co	Bayano River, R. P.
August 8	Dos Hermanos [21]	A. Valdez	Bayano River, R. P.
August 10	Killerig [22]	Lindsay, Swan & Hunter	Cape Mala, R. P.

[20] Motor ship. [21] Motor schooner. [22] Tug. * Other than ships passing through the Canal.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., August 22, 1928. No. 3.

Canal Traffic During First Fifteen Days of August.

During the first 15 days of August, 243 commercial vessels and 3 small launches transited the Canal. Tolls on the commercial vessels aggregated $1,047,324.39, and on the launches, $30.30, or a total tolls collection of $1,047,354.69.

The daily average of transits of commercial vessels was 16.20, and the daily average tolls collection, $69,821.62. The average amount of tolls paid by each of the commercial transits was $4,309.98, as compared with $4,168.39 for the first 15 days of July. Tolls for the first 15 days of August were over $5,000 higher than those for the corresponding period in July, although the number of transits was two less in August than in July.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 7½ months of the current calendar year, with the daily averages of transits and tolls:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,370.57	17.48	71,271.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
August (first 15 days)	243	1,047,324.39	16.20	69,821.62
Totals	3,901	16,169,074.76	17.11	70,916.99

New Liner for Panama Pacific Line.

The International Mercantile Marine Company has announced that a contract has been awarded for the construction of a third new turbo-electric liner for the Panama Pacific Line, operating between New York and Los Angeles and San Francisco, via Habana and the Panama Canal. This vessel which follows the *California*, now in service, and the *Virginia*, launched this month, is to be ready for service in December, 1929. The new ship will be a sister ship of the *Virginia*, and will be 612 feet long, by 82 feet beam, with a displacement of 35,000 tons. These two vessels, which are slightly larger than the *California*, are said to be the largest ships ever built in the United States.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 18, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Columbian	11	19.20	12	6.12	12	12.34	12	13.38	American	Amer.-Hawaiian Line	404.6	54.0	19.6	Boston, Mass	Portland, Oreg	General	3,554	6,760	4,450
Halo [1]	11	22.45	12	6.30	12	13.12	12	14.29	American	Crew, Levick & Co	435.0	56.0	17.0	New York, N. Y.	Los Angeles, Calif	Ballast		7,434	5,145
Lena Luckenbach	12	3.35	12	7.20	12	14.00	12	15.03	American	Luckenbach Line	425.0	53.8	24.0	New Orleans, La	Tacoma, Wash	General	5,708	7,217	5,295
Lancaster	12	5.45	12	7.25	12	14.37	12	19.30	American	Argonaut S. S. Co	434.3	57.7	22.6	Baltimore, Md	Tacoma, Wash	Steel, general	6,667	7,935	5,841
Pajala [2]	12	6.10	12	8.35	12	15.06	12	16.40	Swedish	Can.-Amer. Shipp. Co	418.0	55.0	22.8	Boca Grande, Fla	Osaka, Japan	Phosphate rock	5,487	7,274	5,213
Lisbon Maru	12	10.50	12	11.00	12	17.32	12	18.40	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.0	Baltimore, Md	Osaka, Japan	General	6,885	8,015	5,849
Broad Arrow [1]	12	12.00	12	12.10	12	18.30	12	19.30	American	Standard Transp. Co	467.0	62.6	19.6	New York, N. Y.	Los Angeles, Calif	Ballast		9,700	6,842
Chincha	12	17.15	12	17.35	13	9.32	13	10.55	American	Isthmian S. S. Lines	403.0	52.4	25.0	New York, N. Y.	Vancouver, B. C.	Steel, general	6,678	6,872	4,973
San Nicholas [1]	12	17.23	12	18.05	13	10.26	...	...	British	Lago Shipping Co	305.7	50.0	9.6	Aruba, D. W. I.	Balboa, C. Z	Ballast			
Adolf Von Baeyer	11	9.35	13	6.05	13	13.10	13	18.39	German	Hamburg-American Line	409.10	53.11	23.6	Hamburg, Germany	Valparaiso, Chile	General	5,795	7,173	5,514
Independence	12	21.55	13	6.20	13	13.56	13	15.15	American	Roosevelt S.S. Co., S. B.	400.0	56.0	28.0	Port Arthur, Texas	Manila, P. I	General	8,315	8,290	6,063
Adria [1] [2]	13	00.30	13	7.25	13	14.40	13	21.38	German	Anglo-Saxon Petr. Co	412.0	55.0	21.0	Hamburg, Germany	San Francisco, Cal	Ballast		6,579	4,574
Esparta	13	5.10	13	8.00	13	15.06	13	16.05	American	United Fruit Co	330.6	46.6	19.6	Port Limon, C. R.	San Francisco, Cal	Bananas, coffee	625	3,673	2,367
Japan Arrow [1]	13	6.45	13	8.20	13	15.32	13	16.45	American	Standard Transp. Co	468.3	62.7	22.0	Providence, R. I.	Los Angeles, Calif	Ballast		10,084	7,426
British Governor [1]	13	14.00	13	18.00	14	10.06	14	11.27	British	Anglo-Mexican Pet. Co	439.0	57.0	20.10	Southampton, Eng.	Los Angeles, Calif	Ballast		7,554	5,079
Arana	13	14.03	14	6.00	14	14.44	14	16.05	British	Pacific Steam Nav. Co	303.4	43.0	16.3	New York, N. Y.	Guayaquil, Ecuador	General	1,259	2,851	1,776
Cuba Maru [2]	14	00.15	14	6.20	14	15.09	15	2.30	Japanese	Kawasaki S. S. Co	405.0	53.0	25.6	New York, N. Y.	Kobe, Japan	(3)		7,384	6,994	5,277
David McKelvy [1]	14	3.00	14	7.17	14	15.42	14	16.35	American	Tidewater Oil Co	430.0	59.0	18.0	New York, N. Y.	Los Angeles, Calif	Ballast		7,629	5,325
Utacarbon [1]	14	11.55	14	12.15	14	19.30	14	20.15	American	Union Oil Co	435.0	56.0	20.0	Port Limon, C. R.	Pt. San Luis, Calif	Ballast		7,482	5,209
W. S. Rheem [1]	14	12.05	14	13.05	14	20.37	15	1.14	American	Standard Oil Co	500.0	68.0	19.0	London, England	Los Angeles, Calif	Ballast		11,224	7,895
Floridian	14	14.48	14	15.00	14	21.16	15	00.15	American	Amer.-Hawaiian Line	415.0	53.7	20.8	Boston, Mass	Tacoma, Wash	General	3,304	7,273	5,144
Atlantic [1]	14	15.55	14	20.20	15	9.36	15	20.00	Norwegian	Anglo-Saxon Petr. Co	440.0	57.6	18.0	Southampton, Eng.	Los Angeles, Calif	Ballast		7,589	5,312
La Plata Maru [4]	14	13.50	15	6.00	15	13.02	15	14.00	Japanese	Osaka Shosen Kaisha	430.0	56.0	21.8	Buenos Aires, Arg	Kobe, Japan	(4)		2,906	7,875	5,821
Kensington Court	14	21.25	15	6.20	15	13.59	15	15.25	British	Inter-Island S. N. Co	395.0	53.0	25.6	Barry, England	Honolulu, T. H.	Coal		5,491	5,524	3,754
Paul Luckenbach	15	5.20	15	7.19	15	14.35	15	15.25	American	Luckenbach Line	471.0	59.0	22.6	Boston, Mass	Seattle, Wash	General		5,456	9,027	6,539
Franklin K. Lane [1]	15	8.33	15	8.50	15	15.38	15	16.50	American	Huasteca Petroleum Co	435.0	56.2	20.0	Fall River, Mass	Los Angeles, Calif	Ballast			7,405	5,131
Sunelseco	14	23.05	15	9.38	15	16.55	15	18.05	American	Transmarine Lines	324.0	46.2	17.0	Newark, N. J	San Francisco, Cal	General		800	3,984	2,612
Hadnot [1]	15	11.10	15	11.25	15	17.50	15	19.00	American	Richfield Oil Co	417.0	56.0	20.0	New York, N. Y.	Los Angeles, Calif	Ballast			6,706	4,639
Tashmoo	15	13.57	15	14.10	15	20.54	15	22.25	American	Chas. Nelson Line	324.0	46.2	19.0	Norfolk, Va	San Francisco, Cal	General		1,650	3,984	2,628
Emil Kirdorf	15	14.32	15	19.27	16	9.08	16	10.29	German	Hamburg-American Line	410.0	54.0	23.2	Hamburg, Germany	Vancouver, B. C.	General		5,874	7,141	5,468
Lebore	15	13.20	15	20.55	16	10.22	16	11.31	American	Ore S. S. Corp	549.0	72.0	24.7	Baltimore, Md	Cruz Grande, Chile	Ballast			14,325	4,635

[1] Tanker. [2] Motor ship. [3] Scrap iron, lubricating oil, phosphates, and rosin. [4] Pig iron, paraffin wax, and general.

Antinous	15	9.35	16	6.10	16	13.36	16	14.35	French	Messageries Maritimes	413.0	56.9	22.10	Dunkirk, France	Noumea, N. Calid	General	2,677	7,643	5,364
Wido	15	11.20	16	6.13	16	14.14	19	10.56	German	Roland Line	393.0	54.0	22.0	Hamburg,Germany	Valparaiso, Chile	General	3,499	6,585	4,631
Sommerstad [2]	16	8.00	16	10.55	16	17.38	16	18.50	Norwegian	A. F. Klaveness & Co	381.0	55.2	16.6	New Orleans, La	Los Angeles, Calif	Ballast			
Dean Emery [1]	16	11.15	16	11.40	16	18.44	16	19.56	American	Huasteca PetroleumCo	429.3	59.2	19.0	Baltimore, Md	Los Angeles, Calif	Ballast		7,709	5,517
City of Lille [2]	16	7.00	16	12.10	16	19.40	17	18.05	British	Hall S. S. Line	448.0	58.0	26.0	New York, N. Y.	Adelaide, Australia	General	6,003	8,555	6,167
Cauca [2]	11	21.50	17	6.06	17	13.51	18	2.20	Colombian	National Navigation Co	107.2	22.0	10.8	Cristobal, C. Z	Buenaventura, Col.	General	295	238	163
Point Arena	17	1.45	17	6.15	17	13.51	17	15.10	American	Gulf-Pacific Line	324.0	46.0	19.0	New Orleans, La	Seattle, Wash	General	1,950	3,984	2,612
Clio [1] [2]	17	6.25	17	7.30	17	15.16	17	20.08	Danzig	Baltic-Amer. Petr. Co	470.0	63.2	19.0	Hamburg,Germany	Los Angeles, Calif	Ballast		9,248	6,310
Andagoya [5]	17	6.30	17	8.35	17	15.10	18	18.40	Colombian	Colombian Government	92.6	20.5	8.0	Faversham, Eng	Buenaventura, Col.	Ballast		120	29
Ebro	16	21.35	17	10.21	17	16.52	17	18.05	British	Pacific Steam Nav. Co.	450.0	57.0	26.1	New York, N. Y.	Talcahuano, Chile	General	4,295	9,291	6,301
Cali	15	8.30	17	13.15	17	20.18	17	21.15	German	North German Lloyd	228.0	32.9	12.6	Pto. Colombia, Col.	Guayaquil,Ecuador	General	206	1,105	698
Westfalen [2]	2	18.20	17	13.35	17	21.51	18	10.08	German	Colombian Transp. Co	169.0	30.0	11.0	Cristobal, C. Z	Buenaventura, Col.	General	189	804	503
Niagara [6]	16	17.45	17	14.35	17	21.38	17	22.50	American	U. S. Navy	243.0	36.0	18.0	Cristobal, C. Z	Balboa, C. Z				
Hallfried [2]	17	15.35	17	16.15	18	9.36	18	13.35	Norwegian	Ocean Transport Co	376.3	51.6	14.6	Genoa, Italy	Kobe, Japan	Ballast		5,651	4,114
Sirius [7]	17	13.03	17	21.00	18	12.55	19	14.30	American	U. S. Navy	390.0	54.0	20.3	Boston, Mass	Bremerton, Wash.	Navy cargo	2,601		
City of Panama [2]	2	17.35	18	6.07	18	14.23	18	15.25	Panaman	Panama Mail S. S. Co.	296.0	46.0	20.5	Cristobal, C. Z	San Francisco, Cal.	General	2,928	3,848	2,603
Baralt	16	16.13	18	6.30	18	14.12	18	15.25	Dutch	Royal Neth. S. S. Co	200.0	33.0	11.10	Cristobal, C. Z	Guayaquil,Ecuador	General	129	1,183	742
Texas	16	10.50	18	6.17	18	15.11	18	16.15	French	French Line	409.0	52.0	24.0	Havre, France	Vancouver, B. C.	General	5,008	6,824	4,885
Westmoreland	17	21.10	18	7.35	18	15.43	19	7.11	British	Federal Steam Nav. Co.	473.0	60.0	23.0	London, England	Bluff, N. Z	General	4,894	10,423	7,456
Oriole	18	8.20	18	8.35	18	16.20	18	17.35	American	Quaker Line	410.5	54.2	20.0	Philadelphia, Pa	Portland, Oreg	General	3,666	6,755	4,873
Mongolia	18	7.00	18	8.45	18	15.58	18	23.52	American	Panama Pacific Line	600.0	65.3	27.0	New York, N. Y.	San Francisco, Cal.	General	1,911	17,041	11,426
Peter Kerr	18	8.40	18	9.20	18	16.48	18	19.14	American	Arrow Line	415.0	56.0	22.0	Baltimore, Md	Portland, Oreg	General	3,838	7,704	5,707
Royal Arrow [1]	18	10.00	18	10.15	18	17.50	18	19.14	American	Standard Transp. Co.	467.6	62.7	27.6	Beaumont, Texas	Shanghai, China	Kerosene	11,688	9,699	6,895
Willzipo	18	11.35	18	11.40	18	18.04	18	19.14	American	Williams S. S. Line	415.0	56.0	23.0	Baltimore, Md	Seattle, Wash	General	5,650	7,731	5,805
Canada [2]	18	7.40	18	12.30	18	19.20	18	22.30	Swedish	Johnson Line	425.0	56.0	21.0	Gothenburg, Swed	Seattle, Wash	([8])	5,844	7,476	5,485
Radnorshire	17	19.10	18	14.49	18	21.20	18	22.30	British	Royal Mail S. P. Co	411.6	55.6	15.6	Rotterdam,Holland	Vancouver, B. C.	General	719	6,898	4,887
Swainby	18	15.12	18	19.20	19	9.26			British	Kerr, Gifford & Co	390.0	55.6	16.0	Naples, Italy	Vancouver, B. C.	Ballast		5,930	4,282

[1] Tanker. [5] Lighthouse tender. [6] Survey ship. [7] Auxiliary. [8] Copper ore, pulp, paper, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

San Teodoro [1]	12	5.30	12	6.38	12	13.40	12	17.05	British	Anglo-Saxon Pet. Co	412.0	53.4	24.6	Los Angeles, Calif	Lizard Head, Eng.	Gasoline	7,271	6,006	4,200
Ingrid	11	18.40	12	7.04	12	15.05	12	15.05	Norwegian	Arns Andreassen	279.0	40.1	18.6	Callao, Peru	Dublin, Ireland	Guano	2,700	2,217	1,493
Emden	12	00.12	12	8.07	12	16.15	12	19.05	German	Hamburg-AmericanLine	398.0	52.3	26.0	Pulcahuano, Chile	Hamburg,Germany	General	8,481	5,994	4,057
Florence Luckenbach	12	14.45	12	15.44	12	23.00	12	23.00	American	Luckenbach Line	401.8	52.2	24.2	Portland, Oreg	Mobile, Ala	General	6,670	6,002	4,621
Pat Doheny [1]	12	14.00	13	6.21	13	13.55	13	13.55	American	Richfield Oil Co	430.0	59.2	27.6	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,450	7,978	5,840
Santa Maria [2]	12	16.45	13	6.39	13	13.30	13	15.58	American	Grace Line	466.0	66.0	24.6	Arica, Chile	New York, N. Y.	General	4,461	10,350	6,382
Leeds City	12	22.20	13	7.10	13	15.25	13	17.56	British	E. L. Eyre & Co	400.5	54.3	25.6	Portland, Oreg	Queenstown, Ire	Bulk wheat	8,030	6,697	5,401
Almelo	13	6.10	13	7.55	13	16.05	13	17.30	Dutch	Royal Neth. S. S. Co	447.3	62.7	27.0	Corral, Chile	Hamburg,Germany	General	10,051	9,403	6,653
Canadian Challenger	13	9.45	13	10.30	13	17.22	14	2.55	British	Can. Nat. Steamships	400.1	52.2	17.0	Auckland, N. Z.	Montreal, Canada	Wool, hides,pelts	2,281	6,142	4,354
La Crescenta [1]	13	10.15	13	11.07	13	18.30	13	18.30	British	Harris & Dixon, Ltd	400.0	53.0	28.0	San Francisco, Cal.	Curacao, D. W. I.	Gas oil	8,206	6,128	4,062
C. O. Stillman [2]	13	10.50	13	11.49	13	20.25	13	20.25	British	Inter. Petroleum, Ltd	565.7	75.3	33.0	Talara, Peru	New York, N. Y.	Crude oil	20,790	16,780	11,044
Uranienborg	13	14.05	13	14.57	13	21.30	13	21.30	Danish	C. K. Hansen	345.0	50.0	23.0	Victoria, B. C.	Curacao, D. W. I.	Lumber, general	5,109	4,784	3,643
West Montop	13	15.10	13	15.51	13	22.35	13	22.35	American	Calif. & East'n S.S. Co	410.0	54.4	24.0	Seattle, Wash	Philadelphia, Pa.	Lumber, waste	7,123	6,484	4,675
Canadian Constructor	13	15.30	13	16.16	14	11.12	14	21.00	British	Can. Nat. Steamships	430.0	56.0	22.6	Adelaide, Australia	Montreal, Canada	General	3,496	7,680	5,494
Standard Arrow [1]	13	10.30	14	6.11	14	13.45	14	13.45	American	Standard Transp. Co.	467.6	62.7	27.0	Los Angeles, Calif	New York, N. Y.	Gasoline	11,306	9,698	6,783

[1] Tanker.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
William H. Doheny [1]	13	18.30	14	6.42	14	14.10	14	14.10	American	Pan.-Amer.Pet.&Tr.Co.	435.0	56 2	26 0	Los Angeles, Calif.	Baltimore, Md	Gasoline	9,625	7,406	5,111
BohemianClub [2]	14	1.45	14	7.14	14	16.30	14	16.30	American	Atlantic Refining Co	425 0	57 0	28 0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline, benzol	9,584	7,204	4,769
California	13	11.25	14	7.43	14	15.25	14	15.55	American	Panama Pacific Line	574 4	80 3	28 6	San Francisco, Cal.	New York, N. Y.	General	6,270	24,506	17,565
Ullapool	13	20.05	14	8.43	14	18.20	14	19.50	British	Sir R. Ropner & Co.	405 0	53 5	24 6	Vancouver, B. C.	London, England	Wheat, lumber	7,800	5,876	4,327
Bogota	14	4.50	14	9.12	14	18.45	14	23.35	British	Pacific Steam Nav. Co	399 5	52 4	24 4	Magallenes, Chile.	Havre, France.	General	6,479	5,733	4,015
Nevadan	14	4.59	14	9.46	14	19.00	14	19.00	American	Amer.-Hawaiian Line	460 0	57 8	25 4	Portland, Oreg	Boston, Mass	General	5,917	6,829	4,627
Oak Branch	14	6.50	14	10.13	14	19.30	14	19.30	British	Gulf Line	384 5	49 8	23 2	Coronel, Chile	Liverpool, England	General	6,307	5,209	4,035
Pacific Cedar	14	4.20	14	10.28	14	20.15	14	20.15	American	Dimon S. S. Corp	399 4	54 7	24 2	Seattle, Wash	New York, N. Y.	Lumber	8,325	6,138	4,354
Willboro	14	4.50	14	12.00	14	20.37	14	20.37	American	Williams Line	414 7	55 7	28 6	Seattle, Wash	Philadelphia, Pa.	Lumber, general	8,690	7,257	5,269
Sachsen	14	2.20	14	15.12	14	22.00	15	9.40	German	Hamburg-AmericanLine	468 8	58 3	28 2	Seattle, Wash	Hamburg,Germany	Lumber, general	8,978	9,624	6,732
Altmark	14	16.20	14	17.26	15	11.05	15	16.05	German	Hamburg-AmericanLine	399 3	52 3	15 0	San Jose de Guat.	Tampico, Mexico	Ballast		5,543	3,832
Sylvan Arrow [1]	14	3.50	15	6.29	15	15.00	16	00.30	American	Standard Transp. Co.	467 6	62 7	27 4	Los Angeles, Calif	Baltimore, Md	Bulk gasoline	10,895	9,698	6,862
Cumberland	14	12.45	15	6.44	15	14.45	15	14.45	British	Federal Steam Nav. Co.	520.0	64 2	22 1	PortChalmers,N.Z.	Liverpool, England	Frozen, general	4,766	12,930	9,300
Hegira	14	18.30	15	7.04	15	15.15	15	15.15	American	Hegira S. S. Co.	440 0	56 0	29 0	Everett, Wash.	Baltimore, Md	Lumber	7,530	8,353	6,113
Robert Luckenbach	14	21.00	15	8.02	15	15.55	15	15.55	American	Luckenbach Line	445 0	58 0	27 0	Portland, Oreg	Boston, Mass	Lumber, general	6,928	8,695	6,375
Jersey City	15	5.00	15	8.44	15	17.15	15	18.45	British	Sir W. R. Smith & Sons	411 8	55 0	28 6	Vancouver, B. C.	Falmouth, England	Wheat	9,130	6,952	5,005
Bradclyde	15	9.15	15	10.31	15	18.45	15	19.35	British	Sir W. R. Smith & Sons	399 6	53 0	25 9	Vancouver, B. C.	Liverpool, England	Wheat	8,030	5,883	4,118
Durazzo	15	12.35	15	13.22	15	20.45			German	Hamburg-AmericanLine	226 9	34 5	13 5	Buenaventura, Col.	Cristobal, C. Z	Sack goods	117	1,633	1,041
Rio Blanco	15	15.20	15	16.27	16	11.15	16	13.20	British	Thompson S. S. Co.,Ltd.	363 0	53 3	25 0	Portland, Oreg	Cork, Ireland	Bulk wheat	6,944	5,034	3,464
Atrato	15	15.05	16	6.30	16	15.37			Colombian	Colombian Transp. Co	94 0	23 0	7 0	Buenaventura, Col.	Cristobal, C. Z	[14]	117	160	92
La Perla	15	23.20	16	6.41	16	13.14	17	16.10	American	United Fruit Co.	325.2	48 1	18 6	San Francisco, Cal.	Port Limon, C. R.	General	399	4,033	2,261
Santore	16	1.30	16	7.45	16	15.28	16	15.28	American	Ore S. S. Corp.	449 1	48 1	29 0	Cruz Grande, Chile.	Baltimore, Md	Iron ore	11,000	7,808	5,139
August Leonhardt	16	4.30	16	8.02	16	16.20	16	19.45	German	Leonhardt & Blumberg.	328 8	46 1	12 3	Buenaventura, Col.	New York, N. Y	[13]	294	3,724	2,817
Baralt	16	5.00	16	8.05	16	16.13	18	6.30	Dutch	Royal Neth. S. S. Co.	210 0	33 0	12 6	Guayaquil,Ecuador	Cristobal, C. Z	General	409	1,183	742
Dinteldijk [9]	16	6.15	16	8.57	16	16.30	16	17.10	Dutch	Holland-American Line	485.6	61.3	30.0	Vancouver, B. C.	Rotterdam,Holland	General	9,431	10,786	7,551
Buenaventura	16	8.00	16	9.45	16	17.10	17	15.08	American	Panama R. R. S. S. Line	251.0	43.0	15 6	Guayaquil,Ecuador	New York, N. Y.	[11]	1,167	2,873	1,776
Niagara [10]			16	10.07	16	17.44	17	14.35	American	U. S. Navy	243.0	36.0	18 8	Balboa, C. Z	Cristobal, C. Z				
Canadian Prospector	16	9.55	16	10.45	16	18.55	16	21.10	British	Can. Nat. Steamships	400.0	52.0	23 0	Melbourne, Aust'lia	Montreal, Canada	Sugar and logs	6,105	5,893	4,068
Iowan	16	10.20	16	11.09	16	17.55	16	17.55	American	Amer.-Hawaiian Line	407.7	53.7	24 0	Seattle, Wash	Boston, Mass	General	6,055	7,099	5,028
Kenowis [11]	15	16.41	17	6.15	17	13.22	18	15.55	American	U. S. Army	390 0	54 2	18 0	San Francisco, Cal.	New York, N. Y.	Military supplies	879		
Guatemala	16	15.46	17	6.43	17	13.45	18	11.50	American	Panama Mail S. S. Co.	360 2	51 6	21 5	San Francisco, Cal.	New York, N. Y.	General	1,237	5,776	4,081
Canadolite [1] [9]	16	21.45	17	7.19	17	15.20	17	15.20	British	Imperial Oil Co., Ltd.	510.9	68 2	30 0	Talara, Peru	Montreal, Canada	Crude oil	15,500	11,556	7,658
Sulanierco	17	8.40	17	9.21	17	16.40	17	16.40	American	Transmarine Lines	324 0	46 2	25 0	Aberdeen, Wash.	New York, N. Y.	Lumber	3,065	3,984	2,628
Ipswich	17	4.00	17	10.09	17	17.50	17	17.50	American	Argonaut S. S. Co.	400.7	54 2	22 6	Anacortes, Wash.	New Bedford, Conn.	Lumber	6,610	6,616	4,614
Justin	17	11.10	17	11.56	17	19.03	17	19.45	German	North German Lloyd.	449 0	58 2	25 6	Vancouver, B. C.	Bremen, Germany	[15]	7,757	7,933	5,799

[1] Tanker. [9] Motor ship. [10] U. S. survey ship. [11] U. S. Army transport. [12] Ivory nuts, coffee, and hides. [13] Coffee, hides, and gold. [14] Coffee, cocoa, and Tagua. [15] Wheat, lumber, and general.

Steelore	18	3.00	18	6.05	18	15.55	18	15.55	American	Ore S. S. Corp	550.3	72.2	34.6	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	15,551	4,297
Santos [9]	17	16.15	18	7.00	18	17.10	18	22.10	Swedish	Johnson Line	364.9	51.5	24.2	Vancouver, B. C.	Gothenburg,Swed'n	General	5,558	5,391	4,033
Herald	17	17.45	18	7.06	18	16.10	18	16.10	Danish	Thavenot S. S. Co	272.4	39.1	19.0	San Juan del Sur	Chester, Pa.	Dye woods	2,484	2,149	1,469
Oran	18	7.35	18	8.34	18	18.00	18	18.00	American	Oriental Navigation Co.	410.5	54.2	23.6	Aberdeen, Wash.	Wilmington, Del.	([10])	5,713	6,755	4,887
Oklahoma	18	8.45	18	9.36	18	19.00	19	14.15	French	French Line	400.0	51.6	26.0	Talcahuano, Chile	La Havre, France	General	7,976	6,014	4,477
Anglo-Peruvian	18	9 00	18	10.02	18	19.40	18	22.50	British	Lawther, Latta & Co.	426.0	58.0	24.6	Prince Rupert, B.C.	Fayal, Azores [17]	Wheat	9,130	7,392	5,452
Omphale [1]	18	9.45	18	10.46	18	20.05	18	23.45	French	Le Gascogne Guillaume	422.4	57.5	25.6	Los Angeles, Calif.	Liverpool, England	Gasoline	7,860	6,871	4,635
Spreewald [9]	18	5.51	18	12 31	18	20.45	19	13.27	German	Hamburg-AmericanLine	399.4	54.2	26.0	Corral, Chile	Hamburg,Germany	General	7,899	6,791	4,997
El Grillo [1]	18	17.25	18	18 08	19	11.00	19	11.45	British	C. T. Bowring & Co.	440.0	57.6	27.9	Talara, Peru	Halifax, N. S.	Crude oil	9,660	7,468	5,042

[1] Tanker. [10] Lumber, and empty oil drums. [17] For orders.

All hours are expressed on the 24-hour basis and all hours greater than 12 are post meridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
August 12	Toloa	United Fruit Co	Port Limon, Costa Rica.
August 12	Sangro	Anglo-Saxon Petroleum Co	Curacao, D. W. I.
August 12	Inapaquina [18]	United Fruit Co	Colon, R. P.
August 13	Rugia	Hamburg-American Line	Hamburg via wayports.
August 14	Macabi	United Fruit Co	New York via wayports.
August 14	Calamares	United Fruit Co	New York via Habana.
August 14	Linda S. [19]	Surgeon Brothers	Colon, R. P.
August 14	J. M. Danziger	Huasteca Petroleum Co	Boston, Mass.
August 15	Ancon	Panama Railroad S. S. Line	New York via Haiti.
August 15	Metapan	United Fruit Co	New York via Kingston.
August 15	Saramacca	United Fruit Co	New Orleans, La.
August 16	Suriname	United Fruit Co	Bocas del Toro, R. P.
August 16	Bowden	United Fruit Co	Mobile, Ala.
August 16	Virginia	American Fruit & S. S. Co	New Orleans, La.
August 16	Waunta	Standard Fruit & S. S. Co	Puerto Cabezas, Nica'gua.
August 18	Virginia	American Fruit & S. S. Co	San Blas, R. P.
August 18	Ariguani	Elders & Fyffes, Ltd	Avonmouth via wayports.
August 18	Bowden	United Fruit Co	Perme, R. P.
August 18	Anachucuna [18]	United Fruit Co	Colon, R. P.
August 18	Inapaquina [18]	United Fruit Co	Colon, R. P.

* DEPARTURES.

Date.	Vessel	Line.	For—
August 12	Inapaquina [18]	United Fruit Co	Colon, R. P.
August 12	Banan	United Fruit Co	Mobile, Ala.
August 12	Toloa	United Fruit Co	New York via Habana.
August 13	Cartago	United Fruit Co	New Orleans via wayports.
August 14	I. S. Wilkinson [20]	Howard Lumber Co	Tampa, Fla.
August 14	Mercian	Leyland Line	New Orleans via Pt.Limon.
August 14	Rugia	Hamburg-American Line	Hamburg and wayports.
August 14	Macabi	United Fruit Co	New York via Kingston.
August 14	Linda S. [19]	Surgeon Brothers	Bluefields and wayports.
August 15	Carmania [19]	R. Feuillebois	Colon, R. P.
August 15	J. M. Danziger	Huasteca Petroleum Co	Aruba, D. W. I.
August 15	Calamares	United Fruit Co	Port Limon, Costa Rica.
August 16	Bowden	United Fruit Co	Perme, R. P.
August 16	Saramacca	United Fruit Co	Port Limon and Bocas.
August 16	Suriname	United Fruit Co	New Orleans, La.
August 16	Virginia	American Fruit & S. S. Co	San Blas, R. P.
August 17	Sangro	Anglo-Saxon Petroleum Co	Curacao, D. W. I.
August 17	Metapan	United Fruit Co	New York via wayports.
August 18	Virginia	American Fruit & S. S. Co	New Orleans, La.
August 18	Ariguani	Elders & Fyffes, Ltd	Bristol via Kingston.
August 18	Waunta	Standard Fruit & S. S. Co	Puerto Cabezas, Nic'gua.
August 18	Inapaquina [18]	United Fruit Co	Colon, R. P.
August 18	Anachucuna [18]	United Fruit Co	Colon, R. P.

[18] Motor boat. [19] Motor schooner. [20] Schooner.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
*August 12	Craftsman [21]	R. J. McArdle Constructing Co.	Buenaventura, Colombia.
August 12	Cricamola [22]	Chiriqui Land Co	Chiriqui, R. P.
August 13	Chiriqui [23]	Chiriqui Land Co	Chiriqui, R. P.
August 15	Chiman [22]	Isthmian Land & Fruit Co	El Real, R. P.
August 15	Dos Hermanos [23]	A. Valdez	Bayano River, R. P.
August 15	A. B. O'Barrio [23]	Pacific Fruit Co	Bayano River, R. P.
August 15	Bertha [23]	Chiriqui Land Co	Chiriqui, R. P.
August 15	San Luis [23]	Chiriqui Land Co	Chiriqui, R. P.

Date.	Vessel	Line.	For—
August 12	Chiman [22]	Isthmian Land & Fruit Co	El Real, R. P.
August 13	Cricamola [22]	Chiriqui Land Co	Chiriqui, R. P.
August 14	Craftsman [21]	R. J. McArdle Constructing Co.	Buenaventura, Colombia.
August 14	Chiriqui [23]	Chiriqui Land Co	Chiriqui, R. P.
August 15	Dos Hermanos [23]	A. Valdez	Bayano River, R. P.
August 15	A. B. O'Barrio [23]	Pacific Fruit Co	Bayano River, R. P.
August 15	Bertha [23]	Chiriqui Land Co	Chiriqui, R. P.
August 16	San Luis [23]	Chiriqui Land Co	Chiriqui, R. P.
August 16	Vinland [22]	O. A. Knudsen	Arica, Chile.

[21] Tug. [22] Motor ship. [23] Motor schooner. * Other than ships passing through the Canal.

Cargo Through Canal During July, 1928.

On pages 28 and 29 of this issue will be found tables showing the origin and destination of cargo passing through the Canal during July, 1928. The aggregate of all cargo for the month was 2,291,955 long tons, as compared with 2,450,468 tons passing through the Canal in July last year. The heavy decrease was in the Atlantic-bound cargo and was brought about by small shipments of several commodities usually shipped in bulk, viz., mineral oils, nitrates, and lumber, as compared with the shipments in July of 1927.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Over 66 per cent of the cargo from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 23.6 per cent in Europe. Cargo originating in the United States was 23,488 tons, or 4.9 per cent greater than the amount coming from this area in July last year. Cargo from Europe showed a relative as well as an actual decrease under the amount carried through the Canal in July last year. The decrease from this area was 15,031 tons, or 7.8 per cent.

Destination.—Forty-four per cent of the Pacific-bound cargo tonnage was destined to the United States; 21.1 per cent to Asia (including the Philippines); 15 per cent to Australasia; and 13 per cent to South America. Cargo tonnages to the United States and Asia increased both relatively and actually over July last year, the increases amounting to 35,707 tons, or 12.1 per cent, and 11,096 tons, or 7.6 per cent respectively. Tonnages to Australasia and South America showed small decreases.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo tonnage moving in this direction, 56.1 per cent originated on the west coast of the United States; 25.8 per cent in South America; 12.5 per cent in Canada; 2.6 per cent in Asia (including the Philippines); and 2.1 per cent in Australasia. Cargo from all of these areas, with the exception of Canada, showed decreases under July of last year, although that coming from Asia and Australasia, were, relatively, about the same as last year. The decrease from the United States was 149,669 tons, that from South America, 59,998 tons, from Asia, 4,891 tons; and from Australasia, 4,105 tons. The large decreases from the United States and South America were occasioned by comparatively light shipments of mineral oils and nitrates. Cargo from Canada increased 44,658 tons on account of the heavy wheat shipments.

Destination.—Segregated according to direction, 60.3 per cent of the cargo in this direction went to the United States and 31.9 per cent to Europe. Tonnage to the United States showed an actual decrease of 96,748 tons, or 9.4 per cent, but a small relative increase in its proportion of all cargo from the Pacific as compared with July last year, while that to Europe increased 7,210 tons, or 1.4 per cent. Light shipments of mineral oils and nitrates were responsible for the decreased tonnage to the United States.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 89 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 11 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic-to-Pacific-bound commodities which aggregated more than 10,000 tons for July, 1928, or July, 1927, are listed in the following tabulation, showing differences:

Commodity.	July, 1928.	July, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Ammonia	12,645	7,429	+5,216
Asphalt	15,162	7,104	+8,058
Automobiles	14,466	6,912	+7,554
Cement	12,600	25,111	−12,511
Coal and coke	29,367	20,203	+9,164
Cotton	12,502	25,186	−12,684
Manufactured goods:			
Iron and steel	171,255	171,739	−484
Machinery	13,457	22,086	−8,629
Railroad material	11,058	15,531	−4,473
Tin plate	21,644	13,909	+7,735
Textiles	11,739	10,751	+988
Metals, various	16,652	10,135	+6,517
Oils, mineral	61,992	50,273	+11,719
Paper	23,397	14,184	+9,213
Phosphates	23,598	12,874	+10,724
Sulphur	32,510	14,881	+17,629

The above 16 commodity groups comprise approximately 65 per cent of the cargo moving from the Atlantic to the Pacific during July, 1928. It will be noted that 11 of the items show increases and 5 decreases. The heaviest increases were in sulphur, mineral oils, and phosphates, while cotton and cement showed the heaviest decreases.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify almost 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of July, 1928. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	July, 1928.	July, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Barley	14,815	23,957	−9,142
Canned goods (fish, fruit, vegetables, etc.)	37,701	35,408	+2,293
Cold storage (food products)[1]	22,788	11,515	+11,273
Cotton	11,231	8,347	+2,884
Fruit, dried	13,013	8,456	+4,557
Lumber	344,836	380,612	−35,776
Metals, various	65,171	62,469	+2,702
Nitrates	148,983	221,379	−72,396
Oils, mineral	434,369	594,741	−160,372
Ores (principally iron)	140,575	121,573	+19,002
Sugar	26,428	43,644	−17,216
Wheat	124,042	63,402	+60,640
Wool	11,373	9,899	+1,474

[1] Does not include fresh fruit.

The above 13 commodity groups comprise over 90 per cent of the cargo moving from the Pacific to the Atlantic during July, 1928. Eight of the items show increases and 5 decreases. The heaviest increase was in wheat, which showed a gain of 60,640 tons over July, 1927. Mineral oils and nitrates showed heavy decreases.

(Continued on next page.)

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending August 18, 1928.

Name of vessel:	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Santa Maria	Grace Line	August 12	August 13	6	
Altmark	Hamburg-American Line	August 14	August 14	1	
Sylvan Arrow	Standard Transportation Co	August 14	August 14	830	
Kenowis	U. S. Government	August 15	August 17	472	119
Guatemala	Panama Mail S. S. Co	August 16	August 17	50	1
Sirius	U. S. Government	August 18	August 19	278	29
City of Panama	Panama Mail S. S. Co	August 18	August 18		2

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, July, 1928.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.					
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America.[1]	Balboa, C. Z.[2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	Australia.	New Zealand.	Australasia.[1]	Total, Australasia.	Grand totals.	Per cent of total cargo.
North America:																								
United States—																								
North Atlantic ports	9,423	2,381	433	8,870	2,717	23,824	190,202	3,446	1,423	....	74	9,551	204,696	29,054	27,422	7,281	16,962	80,719	24,852	7,108	7,380	39,340	348,575	46.8
South Atlantic ports	....	....	....	....	....	....	2,445	....	....	....	....	....	2,445	2,932	400	100	335	3,767	....	....	....	....	6,212	0.8
Gulf ports	....	....	....	....	1,331	1,331	52,786	310	....	....	255	413	53,764	56,246	10,290	4,432	801	71,769	15,550	1,000	....	16,550	143,418	19.0
Totals, U. S.	9,423	2,381	433	8,870	4,048	25,155	245,433	3,756	1,423	....	329	9,964	260,905	88,232	38,112	11,813	18,098	156,255	40,402	8,108	7,380	55,890	498,205	66.6
Cristobal, C. Z.[2]	1,284	2,339	852	924	2,810	8,209	7,334	20	5,645	....	....	....	12,999	....	2	....	....	2	....	....	....	....	21,210	2.7
East coast Canada	....	....	....	....	....	....	4,066	2,374	....	....	....	....	6,440	....	....	....	511	511	1,962	5,406	....	7,368	14,319	1.9
West Indies	16	20	....	....	....	36	3,002	....	....	....	5,835	....	8,837	....	....	....	....	....	....	....	....	....	8,873	1.2
E. coast Mexico and Central America	....	2,650	....	....	....	2,650	2,663	....	....	....	....	....	2,663	....	....	....	500	500	5,631	6,885	....	12,516	18,329	2.5
Totals, N. America	10,723	7,390	1,285	9,794	6,858	36,050	262,498	6,150	7,068	....	6,164	9,964	291,844	88,232	38,114	11,813	19,109	157,268	47,995	20,399	7,380	75,774	560,936	74.9
Europe:																								
British Isles	30,647	186	381	1,160	3,912	36,286	13,795	3,939	....	....	....	....	17,734	....	....	....	....	....	....	35,320	....	35,320	89,340	11.9
Belgium	829	724	215	867	2,715	5,350	16,400	1,402	215	....	....	....	18,017	....	....	....	....	....	....	....	....	....	23,367	3.2
France	1,168	....	72	57	....	1,297	4,087	44	121	....	....	....	4,252	....	....	....	....	....	....	....	....	....	5,549	0.8
Germany	2,905	870	718	1,474	2,174	8,141	8,766	2,234	695	....	770	1,230	13,695	....	....	....	....	....	330	....	....	330	22,166	3.0
Holland	755	154	647	132	1,957	3,645	4,097	530	186	....	....	....	4,813	....	....	....	....	....	....	....	....	....	8,458	1.1
Italy	....	....	....	....	....	....	319	2	....	....	....	....	321	....	....	....	....	....	....	....	....	....	321	....
Norway and Sweden	241	....	1	100	567	909	3,383	49	624	....	450	2,424	6,930	....	....	....	....	....	2,176	....	....	2,176	10,015	1.4
Spain and Portugal	421	....	27	76	29	553	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	553	....
Europe[1]	511	28	13	61	3,331	3,944	8,929	237	3,400	....	....	....	12,566	....	....	....	....	....	....	....	....	....	16,510	2.2
Totals, Europe	37,477	1,962	2,074	3,927	14,685	60,125	59,776	8,437	5,241	....	1,220	3,654	78,328	....	....	....	....	....	2,506	35,320	....	37,826	176,279	23.6
E. coast South America	....	....	....	....	....	....	7,357	3,165	....	....	....	....	10,522	224	39	....	160	423	....	....	....	....	10,945	1.5
Grand totals	48,200	9,352	3,359	13,769	21,495	96,175	329,631	17,752	12,309	....	7,384	13,618	380,694	88,456	38,153	11,813	19,269	157,691	50,501	55,719	7,380	113,600	748,160	100.0
Per cent of total cargo:																								
July, 1928	6.5	1.2	0.5	1.9	2.9	13.0	44.0	2.4	1.6	....	1.0	1.9	50.9	11.8	5.1	1.6	2.6	21.1	6.7	7.4	0.9	15.0	100.0	....
July, 1927	7.0	1.8	0.8	4.5	1.6	15.7	39.7	6.2	0.8	....	....	0.9	47.6	8.8	7.3	2.3	1.5	19.9	13.1	3.5	0.2	16.8	100.0	....
July, 1926	4.3	1.2	0.4	0.2	8.4	14.5	42.7	3.1	2.3	2.8	....	....	50.9	6.8	4.5	1.1	6.6	19.0	9.1	5.8	0.7	15.6	100.0	....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, July, 1928.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.																Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Central America.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.[1]	Total, Europe.	East coast of South America.	Egypt.	South Africa.	Grand totals.	
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																						
South America:																										
Chile	150,382		17,320	167,702	7,500	594	34	95	175,925	26,716	8,055	422	6,036	10,754	6,790	1,602	1,660	5,007	70,075	137,117	1,056	15,072		329,170	21.3
Colombia	968			968				1,407	2,375		7			131	59					197				2,572	0.2
Ecuador	7,022			7,022		6		2,477	9,505	70			105	52	32			126		385	32			9,922	0.6
Peru	17,932			17,932	15,800	20		2,062	35,814	15,560	729		12	1,892	365	23			395	18,976				54,790	3.5
West coast S. Am.[1]	552			552				221	773	28	360		71						810	1,269				2,042	0.2
Totals, So Am.	176,856		17,320	194,176	23,300	620	34	6,262	224,392	42,374	9,151	422	6,224	12,829	7,246	1,625	1,660	5,133	71,280	157,944	1,088	15,072		398,496	25.8
North America:																										
West coast Canada	58,616		793	59,409	12,516	1,610	710	260	74,505	61,050	14,781		1,631	5,349	3,084	300	4,100	10	26,635	116,940	1,009			192,454	12.5
W. coast Cen. Am						6		2,488	2,494				36	100		40	3,325			3,501				5,995	0.4
W. coast U. S	604,373	16,272	12,843	633,488	5,600	13,409	11,459	14,830	678,786	138,045	5,989	1,312	9,595	18,872	1,972	704	768	1,226	7,445	185,928	1,155			865,869	56.1
Hawaii			9,340	9,340					9,340															9,340	0.7
Gatun Lake			262	262					262															262	
Totals, No. Am.	667,989	16,272	23,238	702,499	18,116	15,025	12,169	17,578	765,387	199,095	20,770	1,312	11,262	24,321	5,056	1,044	8,193	1,236	34,080	306,369	2,164			1,073,920	69.5
Asia:																										
China	7,921			7,921		7,163			15,084															15,084	1.0
Japan	297								297															297	
Philippines	19,759		4,000	23,759					23,759															23,759	1.5
Far East[1]	1,003			1,003					1,003															1,003	0.1
Totals, Asia	28,980		4,000	32,980		7,163			40,143															40,143	2.6
Australasia:																										
Australia	2,450			2,450					2,450															2,450	0.2
New Zealand	10			10					10	21,455									958	22,413				22,423	1.5
Australasia[1]										3,100			3,263							6,363				6,363	0.4
Totals, Austral'ia	2,460			2,460					2,460	24,555			3,263						958	28,776				31,236	2.1
Grand totals	871,285	16,272	44,558	932,115	41,416	22,808	12,203	23,840	1,032,382	266,024	29,921	1,734	20,749	37,150	12,302	2,669	9,853	6,369	106,318	493,089	3,252	15,072		1,543,795	100.0
Per cent of total cargo:																										
July, 1928	56.4	1.0	2.9	60.3	2.7	1.5	0.8	1.6	66.9	17.2	1.9	0.1	1.3	2.4	0.8	0.2	0.7	0.4	6.9	31.9	0.2	1.0		100.0	
July, 1927	54.0	3.0	3.2	60.2	3.8	1.4	0.1	3.4	68.9	12.7	0.5		0.5	2.9	0.9	0.6	0.8	0.7	8.8	28.4	1.6	1.1		100.0	
July, 1926	54.0	1.0	2.4	57.4	6.8	1.0		1.7	66.9	14.7	0.9		0.4	2.5	0.3				11.1	29.9	0.6	2.1	0.5	100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

United States Intercoastal Shipments Transshipped at Canal Zone.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., August 14, 1928.

MEMORANDUM FOR STEAMSHIP AGENTS:

This office recently made inquiry of the Treasury Department as to the status of intercoastal shipments transshipped at Canal Zone ports. A reply has just been received in which it is stated that the following regulations for handling the traffic in question will be published in an early issue of the weekly Treasury Decisions:

"Shipments via Panama Canal Zone.

"Regulations governing the customs treatment of domestic merchandise transshipped in the Panama Canal Zone while en route between any two ports of the United States, including its island possessions.

"TREASURY DEPARTMENT,
"OFFICE OF THE COMMISSIONER OF CUSTOMS,
"WASHINGTON, D. C.

"To Collectors of Customs and Others Concerned:

"The following regulations are prescribed for the customs treatment of domestic merchandise transshipped in the Panama Canal Zone while en route between ports of the United States, including its island possessions:

"(1) Where domestic merchandise shipped between ports of the United States, including its island possessions, via the Isthmus of Panama, is to be transshipped in the Panama Canal Zone, a special manifest shall be prepared in triplicate and in the form provided in Article 217 of the Customs Regulations of 1923, modified to meet the circumstances and certified by the collector of customs at the port of departure. One copy of the manifest shall be filed in the office of the collector at the said port, one copy delivered to the master of the vessel and one mailed to the collector at the port of destination of the merchandise.

"(2) It will not be necessary to seal the packages or the compartments in which they are shipped, nor will any supervision of the transshipment in the Canal Zone be required. However, upon arrival of the merchandise at the port of destination, the packages will be examined by officers of the customs and compared with the marks and numbers on the manifest and checked thereon before delivery to the consignee. All goods so shipped not corresponding with the manifest will be held for duty. Baggage of passengers may be manifested in this manner.

"These regulations shall not apply to merchandise shipped in bond.

"(Signed) FRANK DOW,
Acting Commissioner of Customs.

"(110809)

"Approved, July 26, 1928.

"(Signed) OGDEN L. MILLS,
"*Acting Secretary of the Treasury.*"

C. A. MCILVAINE,
Executive Secretary.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

United States Intercoastal Traffic by Commodities for July, 1928.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for July, 1928, and the totals for July, 1927 and 1926. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise but they are indicative of the kind and quantity of the cargo in transit through the Canal. The figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Aeroplanes	5	.....	5
Agricultural implements	1,114	209	1,323
Alfalfa meal	.....	674	674
Ammonia	150	.....	150
Ammunition	65	.....	65
Asbestos	1,258	.....	1,258
Asphalt	356	24	380
Automobiles	1,190	61	1,251
Automobile accessories	649	31	680
Bamboo	.....	96	96
Bananas	872	.....	872
Bark, cascara	.....	6	6
Barley	.....	2,070	2,070
Beans	52	2,284	2,336
Bones and bonemeal	30	42	72
Borax	.....	1,232	1,232
Bricks	270	.....	270
Burlap	105	61	166
Calcium carbide	83	.....	83
Camphor	.....	192	192
Canned goods:			
Fish	486	3,987	4,473
Fruit	218	13,730	13,948
Meat	25	158	183
Milk	.....	694	694
Soup	1,119	.....	1,119
Vegetables	830	2,139	2,969
Miscellaneous	1,997	7,874	9,871
Carbon black	11	103	114
Celite filtercel	.....	921	921
Cement	1,679	105	1,784
Charcoal	76	163	239
Chemicals	2,287	314	2,601
China and fire clay	132	20	152
Coal	4,510	.....	4,510
Cocoa	544	.....	544
Coconuts	50	598	648
Coffee	240	26	266
Cold storage:			
Cheese	5	.....	5
Eggs	.....	392	392
Lard	1,083	.....	1,083
Meat	14	.....	14
Other	120	.....	120
Confectionery	182	12	194
Cork	256	.....	256
Cotton	60	1,038	1,098
Cyanide	142	.....	142
Drugs	503	.....	503
Earthenware	.....	88	88
Eggs, dried	.....	134	134
Fertilizer	51	150	201
Flour	132	6,800	6,932
Fruit:			
Dried	.....	6,928	6,928
Fresh	44	2,661	2,705
Fuller's earth	934	.....	934
Furniture	365	65	430
General	42,074	10,197	52,271
Glass and glassware	3,107	134	3,241
Glue	75	27	102
Granite	12	.....	12
Hair	54	79	133
Hardwoods	324	50	374
Hay	.....	525	525
Hemp	215	346	561

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Total.
Honey	.....	331	331
Hops	.....	163	163
Jute	515	88	603
Linoleum	770	290	1,060
Liquors	122	.....	122
Lumber	2,340	224,559	226,899
Malt	197	.....	197
Manufactured goods:			
Iron and steel	87,440	338	87,778
Machinery	3,787	397	4,184
Railroad material	2,833	.....	2,833
Tinplate	13,342	.....	13,342
Textiles	5,168	476	5,644
Miscellaneous	3,850	3,009	6,859
Marble	2,559	.....	2,559
Matches	77	29	106
Metals:			
Antimony	.....	45	45
Copper	40	9,500	9,540
Iron	156	.....	156
Scrap	291	1,359	1,650
Tin	.....	63	63
Zinc	18	513	531
Other	.....	550	550
Milk, powdered	55	776	831
Molasses	39	.....	39
Musical instruments	57	.....	57
Nitrates	.....	45	45
Nuts	.....	204	204
Oils:			
Cottonseed	89	.....	89
Crude	5,846	60,016	65,862
Gas oil, fuel oil	.....	19,474	19,474
Gasoline, benzine, and naphtha	.....	216,650	216,650
Lubricating and greases	3,464	91	3,555
Olive	20	.....	20
Vegetable	300	56	356
Wood	.....	60	60
Other	512	120	632
Ores:			
Copper	.....	800	800
Magnesite	54	2,083	2,137
Manganese	67	18	85
Zinc	.....	32	32
Paint	712	88	800
Paper	7,121	3,163	10,284
Paper, pulp	12	1,109	1,121
Paper roofing	280	.....	280
Peanuts	41	436	477
Peas	16	.....	16
Phosphates	1,151	.....	1,151
Plaster	24	3	27
Porcelain	95	804	899
Quicksilver	.....	4	4
Rags	.....	807	807
Rice	62	171	233
Rope	288	67	355
Rosin	694	.....	694
Rubber:			
Manufactured	1,602	73	1,675
Raw	40	.....	40
Scrap	.....	37	37
Salt	393	.....	393
Saltpetre	40	.....	40
Seeds:			
Cotton	46	.....	46
Grass	.....	22	22
Hemp	.....	50	50
Other	.....	173	173
Shells	1,257	.....	1,257
Silk	20	95	115
Skins and hides	25	2,062	2,087
Slag	800	.....	800
Slate	441	.....	441
Soap	3,529	14	3,543
Soda	605	.....	605
Soda, ash	1,399	.....	1,399
Soda, bicarbonate	35	.....	35
Soda, caustic	925	.....	925
Sugar	103	4,952	5,055
Sulphur	15,930	.....	15,930
Syrup	93	.....	93
Talc	.....	202	202
Tallow	.....	448	448
Tar	15	.....	15

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Tea	135	51	186
Tobacco	2,816	20	2,836
Toys	201	10	211
Turpentine	82	.....	82
Vegetables	60	210	270
Waste	29	223	252
Wax	56	.....	56
Wine	21	341	362
Wool	.....	8,278	8,278
Zinc oxide	76	.....	76
Totals, July, 1928	245,433	633,488	878,921
Totals, July, 1927	212,214	726,553	938,767
Totals, July, 1926	216,831	617,535	834,366

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Three Weeks Ending August 18, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Urubamba	Peruvian Line	.....	July 29	.....	120
Portland	Hamburg-American Line	.....	July 29	.....	300
Pastores	United Fruit Co	July 29	July 29	8	234
Baralt	Royal Netherlands S. S. Co	.....	July 30	.....	77
Parismina	United Fruit Co	.....	July 30	.....	22
Saint Joseph	French Line	July 29	July 30	325	12
Witram	North German Lloyd	July 29	July 30	(1)	55
Mayari	United Fruit Co	July 30	July 30	20	320
Santa Cruz	Grace Line	July 30	July 31	135	286
Poseidon	Hamburg-American Line	July 30	July 31	235	(2)
Ballena	Pacific Steam Navigation Co	July 30	August 1	63	230
Ulua	United Fruit Co	July 30	August 1	604	4
Astral	Standard Transportation Co	July 30	August 2	1,000	(2)
Alkmaar	Royal Netherland S. S. Co	July 31	August 1	308	86
Rugia	Hamburg-American Line	July 31	August 1	144	79
Durazzo	Hamburg-American Line	July 31	.....	271	.....
Tongking	Danish East Asiatic Co	August 1	August 1	211	(2)
Abron	Finkbine Guild Trans. Co	August 1	August 2	350	(2)
Zacapa	United Fruit Co	August 1	August 2	456	229
Coppename	United Fruit Co	August 1	August 2	555	103
Cristobal	Panama Railroad S. S. Line	August 1	.....	2,889	.....
Uribe	United Fruit Co	August 1	.....	800	.....
Saramacca	United Fruit Co	August 2	August 2	8	415½
Virginia	American Fruit & S. S. Corp	August 2	August 2	200	4
Salvador	Pacific Steam Navigation Co	.....	August 2	.....	1,074
City of Panama	Panama Mail S. S. Co	August 2	.....	1,050	.....
San Mateo	United Fruit Co	August 2	August 3	617	420
Westfalen	Colombian Transport Co	August 2	.....	108	.....
Almagro	Pacific Steam Navigation Co	August 2	August 3	219	40
Sesostris	Hamburg-American Line	August 2	August 4	(1)	735
Venezuela	Panama Mail S. S. Line	August 3	August 4	360	93
Firpark	Munson Line	August 3	.....	1,500	.....
Virginia	American Fruit & S. S. Corp	August 4	August 4	(1)	327
Maravi	United Fruit Co	August 4	August 4	48	695
Padilla	Colombian S. S. Line	.....	August 4	.....	550
William M	R. Feuillebois	August 4	August 4	(1)	30
Equatore	Italian Line	August 4	.....	215	.....
Minnesota	French Line	August 4	.....	134	.....
Cerigo	Hamburg-American Line	August 4	.....	516	.....
Garfield	N. O. & S. A. S. S. Line	August 4	.....	25	.....
Heredia	United Fruit Co	August 4	.....	548	.....
Cristobal	Panama Railroad S. S. Line	.....	August 5	.....	3,566
Garfield	N. O. & S. A. S. S. Line	.....	August 5	.....	112
Buenos Aires	Johnson Line	August 5	August 5	(1)	140
Boskoop	Royal Netherlands S. S. Co	August 5	August 5	429	70
Axel Johnson	Johnson Line	August 5	August 6	193	(2)
Glamorganshire	Royal Mail S. P. Co	August 5	August 5	48	17
Ulua	United Fruit Co	August 5	August 5	20	469
Bowden	United Fruit Co	August 5	August 6	(1)	343
Asuka Maru	Nippon Yusen Kaisha	August 5	August 6	329	(2)
Napierian	Leyland Line	August 5	August 7	1,074	12
Heredia	United Fruit Co	.....	August 6	.....	273
Minnesota	French Line	.....	August 6	.....	355
Teno	Chilean Line	August 6	August 6	5	(2)
Perene	Peruvian Line	August 6	August 7	3	50

[1] No cargo discharged.

[2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z.—Continued.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Toloa	United Fruit Co	August 6	August 8	854	87
Linda S	R. Feuillebois		August 7		45
Finn	Colombian Transport Co	August 7	August 7	32	1
Colombia	Panama Mail S. S. Co	August 7	August 8	509	134
Kuma Maru	Nippon Yusen Kaisha	August 7	August 8	318	(2)
Crijnssen	Royal Netherlands S. S. Co	August 7	August 8	3	8
Leon XIII	Spanish Line	August 7	August 8	227	68
Buenos Aires	Spanish Line	August 7	August 8	199	408
Pellerin de Latouche	French Line	August 7	August 9	345	967
Corinto	Panama Mail S. S. Co		August 9		1,990
Oropesa	Pacific Steam Navigation Co	August 8	August 9	105	254
Arizona	French Line	August 8	August 10	40	154
Santa Marta	United Fruit Co	August 8	August 10	1,094	475
Suriname	United Fruit Co	August 8	August 10	745	68
Acajutla	Pacific Steam Navigation Co	August 8		330	
Favorita	American Fruit & S. S. Corp	August 9	August 9	343	4
Pacific President	Furness, Withy & Co	August 9	August 10	(1)	287
Moerdijk	Holland-American Line	August 9	August 9	(1)	144
Coppename	United Fruit Co	August 9	August 9	11	1,341
Esparta	United Fruit Co	August 9	August 10	587	53
Uribe	United Fruit Co		August 10		1,193
Cerigo	Hamburg-American Line		August 10		357
Guayaquil	Panama Railroad S. S. Line	August 10	August 11	829	293
George Washington	Fred Olson & Co	August 10	August 11	(1)	300
Mississippi	French Line	August 10	August 11	198	(2)
Orita	Pacific Steam Navigation Co	August 10	August 11	2	1
Mercian	Leyland Line	August 11		640	
Adolf von Baeyer	Hamburg-American Line	August 11		507	
Favorita	American Fruit & S. S. Co	August 11	August 11	(1)	288
Crijnssen	Royal Netherlands S. S. Co	August 11	August 11	½	492
Cauca	National Navigation Co	August 11		271	
Utacarbon	Union Oil Co	August 11		5,715	
Cartago	United Fruit Co	August 11		718	
Banan	United Fruit Co		August 12		527
Toloa	United Fruit Co	August 12	August 12	13	187
Sangro	Anglo-Saxon Petroleum Co	August 12	August 17	7,116	(2)
Adolf von Baeyer	Hamburg-American Line		August 13		417
Cartago	United Fruit Co		August 13		24
Santa Maria	Grace Line	August 13	August 13	(1)	108
Rugia	Hamburg-American Line	August 13	August 14	7	288
Mercian	Leyland Line		August 14		137
Arana	Pacific Steam Navigation Co	August 13	August 14	77	86
Linda S	R. Feuillebois		August 14		40
Canadian Constructor	Canadian National Steamships	August 14	August 14	22	(2)
Macabi	United Fruit Co	August 14	August 14	112	417
Bogota	Pacific Steam Navigation Co	August 14	August 14	47½	37
Calamares	United Fruit Co	August 14	August 15	1,079	5
J. M. Danziger	Huasteca Petroleum Co	August 14	August 15	9,285	(2)
La Plata Maru	Osaka Shosen Kaisha	August 14	August 15	109	(2)
Sylvan Arrow	Standard Transport Co	August 15	August 15	450	(2)
Ancon	Panama Railroad S. S. Line	August 15		3,101	
Saramacca	United Fruit Co	August 15	August 16	691	88
Metapan	United Fruit Co	August 15	August 16	469	157
Wido	North German Lloyd	August 15	August 16	195	(2)
Emil Kirdorf	Hamburg-American Line	August 15	August 16	3	(2)
Cali	North German Lloyd	August 15	August 16	209	221
Durazzo	Hamburg-American Line	August 15		117	
Suriname	United Fruit Co	August 16	August 16	4	401
Canadian Prospector	Canadian National Steamships	August 16	August 16	1	(2)
August Leonhardt	Colombian Transport Co	August 16	August 16	19	(2)
Virginia	American Fruit & S. S. Corp	August 16	August 16	189	5
Atrato	Colombian Transport Co	August 16		118	
La Perla	United Fruit Co	August 16	August 17	535	121
Buenaventura	Panama Railroad S. S. Line	August 16	August 17	351	(2)
Waunta	American Fruit & S. S. Corp	August 16	August 18	726	44
Cauca	National Navigation Co		August 17		295
Ebro	Pacific Steam Navigation Co	August 16	August 17	19	33
Baralt	Royal Netherlands S. S. Co	August 16	August 17	408½	126
Westfaen	Colombian Transport Co		August 17		116¾
Radnorshire	Pacific Steam Navigation Co	August 17	August 18	507	(2)
Guatemala	Panama Mail S. S. Co	August 17	August 18	504	396
Illinois	French Line	August 18		143	
Oklahoma	French Line	August 18		288	
Virginia	American Fruit & S. S. Corp	August 18	August 18	(1)	337
City of Panama	Panama Mail S. S. Co		August 18		2,905
Spreewald	Hamburg-American Line	August 18		92	
Canada	Johnson Line	August 18	August 18	82	11
Santos	Johnson Line	August 18	August 18	(1)	152
Texas	French Line	August 16	August 18	795	18

[1] No cargo discharged.

[2] No cargo laded.

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 12 cents per pound and forequarters at 9½ cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, White male	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.; Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Section "B:"	
Ward 5, Male, private rooms, American boys	Daily, 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, American girls	(No visitors permitted in nursery.)
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U	
Ward 14, American, male, G. U	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.00 to 4.00 p. m.
Ward 17, Colored children	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 18, White children	Daily, 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 20, Colored, female, surgical, obstetrical	
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

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Proportion of Traffic by Frequency, Fiscal Year 1928.

The following tabulation shows for the fiscal year ended June 30, 1928, the number of vessels making the indicated number of transits through the Panama Canal, the per cent which each class formed of the total number of individual vessels (1,811), their aggregate number of transits, and their per cent of the total commercial transits (6,456):

Number of transits.	Number of vessels.	Per cent of individual vessels. (1,811)	Total number of transits.	Per cent of total Canal transits.
1	493	27.2	493	7.6
2	493	27.2	986	15.3
3	175	9.7	525	8.1
4	202	11.2	808	12.5
5	111	6.1	555	8.6
6	98	5.4	588	9.1
7	64	3.5	448	6.9
8	49	2.7	392	6.1
9	29	1.6	261	4.0
10	23	1.3	230	3.6
11	8	.4	88	1.4
12	16	.9	192	3.0
13	17	.9	221	3.4
14	4	.2	56	.9
15	6	.3	90	1.4
16	3	.1	48	.7
17	2	.1	34	.5
18	3	.1	54	.8
19	3	.1	57	.9
20	1	.1	20	.3
21	2	.1	42	.6
22	2	.1	44	.7
23	1	.1	23	.4
24	1	.1	24	.4
25	1	.1	25	.4
26	1	.1	26	.4
30	1	.1	30	.5
31	1	.1	31	.5
65	1	.1	65	1.0
Totals	1,811	100.0	6,456	100.0

FREQUENCY OF TRANSITS OF VESSELS THROUGH THE PANAMA CANAL.

During the fiscal year 1928, 1,811 individual commercial vessels representing 23 nationalities, passed through the Panama Canal. The number of transits per individual ship varied from 1 to 65, the 1,811 vessels making a total of 6,456 transits, or an average of 3.57 transits per vessel.

The highest number of transits made by any vessel during the fiscal year was 65, made by the motor ship *Chiman*, operated by the Isthmian Land and Fruit Company. This vessel is of Panaman registry, and operates between Cristobal and the west coast of the Republics of Panama and Colombia. It is a vessel of 124 net tons, Panama Canal measurement, 116 feet long by 12 feet beam.

Vessels of the United States registry led in aggregate number of transits, though not in number of individual ships. While representing only 29 per cent of the individual vessels passing through the Canal,

they made up approximately 43 per cent of the total transits. Ships of the British registry ranked second in total transits with 1,842, and Germany third with 316.

The following table shows the number of individual ships, the frequency of transit per vessel, and total transits for the year, segregated by nationality:

NATIONALITY, NUMBER, AND TRANSITS OF VESSELS THROUGH THE PANAMA CANAL, FISCAL YEAR 1928.

Nationality of vessels.	Vessels making indicated number of transits per vessel during fiscal year 1928.																													Total ships.	Total transits.	Average number of transits.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	30	31	65			
Belgian	2	2	1	1																										6	13	2.17
British	253	243	70	77	34	29	3	7	1	1	1	3	1					1		1			1	1						727	1,842	2.53
Chilean	4	1											2																	7	32	4.57
Colombian		1								1			1					1								1	1			6	99	16.50
Costa Rican		1																												1	2	2.00
Danish	3	7	4	6	2	1																								23	69	3.00
Danzig	3	3	1	1	1			1																						10	29	2.90
Dutch	10	5	2	1	9	4	1																					1		33	137	4.28
Ecuadorean	1																								1					1	1	1.00
Finnish	3																													3	3	1.00
French	10	9	12	12	3								1								2	2			1					46	127	2.76
German	19	29	9	7	8	2		1																						81	316	3.90
Greek	5	2	1																											8	12	1.50
Honduranean	1																													1	1	1.00
Italian	10	20	5	6	3	1		1																						46	118	2.57
Japanese	22	21	8	18	3	1	1																							74	188	2.54
Norwegian	47	37	10	10	7	7	2	1		1			1																	123	313	2.54
Panaman	3	4		2	2		1			1	1				1													1		16	138	8.62
Peruvian	2	1				1		1	1			1	1																	8	53	6.62
Spanish	2	9		1			2	1																						15	46	3.07
Swedish	10	4	1	3	3	2	2											1	1											27	111	4.11
United States	79	91	47	54	36	48	51	36	27	19	6	12	11	3	6	2	2		2											532	2,753	5.17
Yugoslavian	4	3	4	3		2	1																							17	53	3.12
Totals	493	493	175	202	111	98	64	49	29	23	8	16	17	4	6	3	2	3	3	1	2	2	1	1	1	1	1	1	1	1,811	6,456	3.57

From the above it will be noted that 493, or approximately 27 per cent of the individual vessels using the Canal during the year, made but one transit; that 46 per cent made 3 or more transits; and that less than 6 per cent made 10 or more transits.

CANAL WORK IN JULY, 1928.

The following is the report of the Governor to the Secretary of War, of Canal work in July, 1928.

BALBOA HEIGHTS, C. Z., *August 24, 1928.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of July, 1928:

NUMBER OF TRANSITS.

During the month 509 commercial vessels passed through the Canal. In addition to these, 10 nonseagoing launches, measuring under 20 tons, and 28 vessels belonging to or chartered by the United States Government transited the Canal. There were also 3 transits of a Panama Government vessel and 8 transits of vessels solely for repairs, on which no tolls were collected, making a total of 558 transits for the month, or a daily average of 18.

Tolls on the 509 commercial vessels amounted to $2,109,083.19, and on the launches to $73.35, a total of $2,109,156.54, or a daily average on all traffic of $68,037.31. Total traffic for July exceeded that of the preceding month by 23 transits and almost $93,000 in tolls.

The total number of craft of all kinds transiting the Canal during the month of July, 1928, as compared with the same month in 1927 and 1926, are shown in the following tabulation:

	July, 1928.	July, 1927.	July, 1926.
Commercial vessels	509	509	456
Noncommercial vessels (Army and Navy)	28	29	19
Launches (under 20 tons measurement)	10	16	7
Panaman Government vessels	3	2	1
Vessels for repairs	8	2	2
Total vessels transiting Canal	558	558	485

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	14	9	23
Pedro Miguel	35	27	62
Miraflores	37	23	60
Totals	86	59	145

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the calendar year 1928, to the end of July, 1928, as compared with the same months in the preceding year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927.	1928.	1927.	1928.	1927.	1928.	1927.	1928.
January	443	540	2,121,631	2,422,770	2,241,765	2,372,061	$1,984,760.71	$2,212,752.50
February	449	547	2,201,328	2,460,111	2,230,107	2,660,425	1,994,860.82	2,253,755.37
March	496	542	2,413,999	2,441,077	2,533,525	2,428,662	2,217,913.20	2,223,370.57
April	464	531	2,224,500	2,384,491	2,429,807	2,473,884	2,065,206.92	2,187,607.82
May	471	508	2,248,892	2,274,612	2,379,713	2,497,588	2,066,070.73	2,118,969.83
June	455	481	2,152,926	2,227,865	2,229,097	2,139,565	1,970,377.97	2,016,211.09
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	2,215,515.99	2,109,083.19
Totals	3,287	3,658	15,770,231	16,529,321	16,494,482	16,864,140	14,514,706.34	15,121,750.37

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for July, 1928, as compared with the corresponding month in 1927 and 1926, and the monthly averages for the fiscal year 1928:

	July, 1928.	July, 1927.	July, 1926.	Average per month for fiscal year 1928.
Number of vessels	509	509	456	538
Panama Canal net tonnage	2,318,395	2,406,955	2,154,821	2,454,886
United States net tonnage	1,771,887	1,883,138	1,692,368	1,905,316
Registered gross tonnage	2,922,904	3,072,255	2,775,728	3,100,239
Registered net tonnage	1,779,961	1,885,658	1,703,387	1,903,974
Tolls	$2,109,083.19	$2,215,515.99	$1,980,719.67	$2,245,374.98
Tons of cargo carried	2,291,955	2,450,468	2,185,527	2,469,225

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year.
	July, 1928.	July, 1927.	July, 1926.	
Number of transits	16.41	16.42	14.71	17.63
Panama Canal net tonnage	74,787	77,644	69,510	80,488
Tolls	$68,034.94	[1] $71,358.56	$63,894.18	$73,618.85
Tons of cargo carried	73,934	79,047	70,501	80,958

[1] Does not include $3,400.54 collected on supplemental bill.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of July, 1928, as compared with July, 1927, and 1926, are shown in the following tabulation:

	Average per vessel.		
	July, 1928.	July, 1927.	July, 1926.
Panama Canal net tonnage	4,554	4,729	4,725
United States net tonnage	3,481	3,700	3,711
Registered gross tonnage	5,742	6,036	6,087
Registered net tonnage	3,497	3,705	3,735
Tolls	$4,143.58	[1] $4,346.08	$4,343.68
Tons of cargo (including vessels in ballast)	4,503	4,814	4,792
Tons of cargo (laden vessels only)	5,431	6,126	5,843

[1] Does not include $3,400.54 collected on supplemental bill.

TOLLS.

At present tolls are collected at rates of $1.20 per net ton for laden vessels and 72 cents per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed $1.25 per ton nor be less than 75 cents per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined both in accordance with the Panama Canal and the United States rules of measurement.

Due to this limiting proviso the tolls actually collected on laden vessels averaged $0.943 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of July, 1928, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1.00 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian	$10,830.00	$11,003.00	$173.00	
British	[1] 555,768.25	[1] 571,818.60	16,050.35	
Chilean	11,807.50	12,141.00	333.50	
Colombian	5,110.47	4,571.60		$538.87
Cuban	242.50	194.00		48.50
Danish	28,235.64	29,352.20	1,116.56	
Danzig	8,974.80	7,479.00		1,495.80
Dutch	43,428.75	49,750.00	6,321.25	
Finnish	2,010.00	1,675.00		335.00
French	39,660.95	41,113.00	1,452.05	
German	116,798.15	131,837.00	15,038.85	
Italian	22,917.50	26,987.00	4,069.50	
Japanese	44,566.28	41,408.40		3,157.88
Norwegian	76,408.00	80,182.00	3,774.00	
Panaman	1,754.75	2,625.80	871.05	
Peruvian	8,072.30	12,241.00	4,168.70	
Spanish	6,845.00	6,671.00		174.00
Swedish	29,310.32	34,149.40	4,839.08	
United States	1,083,917.03	1,098,727.80	14,810.77	
Yugoslav	12,425.00	12,111.00		314.00
Totals	2,109,083.19	2,176,037.80	73,018.66	6,064.05
Net increase for all traffic			66,954.61	

[1] Includes $4,160 collected for naval vessels at 50 cents per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$13,910.49
United States foreign trade	1,713.06
United States–Canal Zone trade	[1]812.78
Net increase	14,810.77

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in July, 1928, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian	1.17	1.70	1.40
British	.87	1.33	1.09
Chilean	.43	.55	.48
Colombian	1.18	.95	1.12
Cuban	.10		.10
Danish	.53	1.65	1.38
Dutch	.51	1.44	.99
Finnish		1.85	1.85
French	.55	1.36	.96
German	.67	1.37	1.03
Italian	.24	1.02	.85
Japanese	1.26	1.59	1.35
Norwegian	1.01	1.66	1.40
Panaman	1.05		1.05
Peruvian	.35	.81	.55
Spanish	.08	.25	.15
Swedish	.60	3.49	1.90
United States	.82	1.53	1.22
Yugoslavian	1.62	2.03	1.73
Averages, July, 1928	.82	1.49	1.18
Averages, July, 1927	.90	1.58	1.29
Averages, July, 1926	.90	1.51	1.25

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of July, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	4	16,544	$17,020.00	45	238,989	$244,261.55
Ballast	46	248,144	178,764.18	1	2,865	2,062.80
General cargo ships:						
Laden	192	896,498	827,752.34	181	799,970	752,159.05
Ballast	25	107,591	77,235.85	5	7,302	5,263.50
Noncargo-carrying ships:						
Naval vessels	1		2,575.00	2		1,585.00
Tugs	3	288	255.84	2	164	118.08
Yachts	1	20	15.00	1	20	15.00
Totals	272	1,269,085	1,103,618.21	237	1,049,310	1,005,464.98
Method of propulsion:						
Steam	216	1,017,206	901,696.26	195	869,471	841,516.78
Motor	53	250,256	200,577.55	38	176,297	159,788.70
Sail	1	1,362	1,021.50	1	1,675	2,010.00
Nonpropelled	2	261	322.90	3	1,867	2,149.50
Totals	272	1,269,085	1,103,618.21	237	1,049,310	1,005,464.98

Of the 411 steam-driven vessels, 285 were oil-burning, 124 coal-burning, and 2 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of July, 1928. If tolls had been assessed against these vessels at commercial rates, the amounts would have been approximately as indicated:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Ammunition ships				1	[3] 4,405	$5,506.25
Cruisers	2	[1] 9,725	$4,862.50	3	[2] 22,500	11,250.00
Minesweepers	2	[1] 1,900	950.00	2	[1] 1,900	950.00
Submarines	5	[1] 3,602	1,801.00			
Survey ships	1	[3] 703	527.25	1	[3] 703	527.25
Tankers				2	[2] 11,118	13,341.60
Tugs	1	[1] 1,000	500.00			
U. S. Army vessels:						
Launches	2	[3] 20	15.00			
Mineplanters				1	[1] 1,208	604.00
Transports	3	[3] 11,724	14,655.00	2	[3] 7,816	9,770.00
Totals, U. S. Government	16		23,310.75	12		41,949.10
Panama Government vessels:						
Transports	1	[2] 101	72.72	2	[2] 202	145.44
Vessels for repairs:						
Tankers	4	[3] 5,240	3,930.00	4	[3] 5,233	3,924.75
Grand totals	21		27,313.47	18		46,016.29

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of July, 1928, carried cargo as follows: Atlantic to Pacific, 2,127 tons; Pacific to Atlantic, 16,757 tons; total, 18,884 tons.

The following statement shows the number of launches transiting the Canal during the month of July, 1928. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	No. of transits.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific	6	41	$50.40	15
Pacific to Atlantic	4	27	22.95	
Totals	10	68	73.35	15

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of July, 1928, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving, tons	69,143	62,132	131,275
Local cargo shipped, tons	8,210	1,081	9,291
Transit cargo arriving, tons	2,322,567	2,297,991	4,620,558
Transit cargo clearing, tons	2,304,278	2,296,793	4,601,071
Cargo received for transshipment, tons	31,589	728	32,317
Cargo transshipped, tons	25,348	719	26,067
"Canal Zone for Orders" cargo:			
Number of receipts issued	72	27	99
Number of withdrawals	375	133	508
Tons received	1,952	215	2,167
Tons withdrawn	1,458	229	1,687
Packages received	12,658	2,130	14,788
Packages withdrawn	6,467	1,567	8,034
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Co	61	8	69
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Co, tons	17,827	85	17,912
Coal issued, miscellaneous:			
Panama Canal departments, tons	79	7	86
U. S. Army, excepting vessels, tons	55	1	56
Individuals and companies, tons	165		165
Panama Railroad Company, tons	18	12	30
Transferred to Navy, tons	105		105
Total sales and issues, tons	18,249	105	18,354

	Cristobal.	Balboa.	Total.
Coal on hand, July 1, 1928 ..... tons..	36,928	.....	36,928
Coal on hand, August 1, 1928 ..... tons..	47,311	.....	47,311
Coal received during month ..... tons..	28,632	.....	28,632
Coal received from Navy ..... tons..	.....	105	105
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments ..... bbls..	6,576.03	14,624.68	21,200.71
Panama Railroad Company ..... bbls..	540.83	.....	540.83
U. S. Army and Navy ..... bbls..	.....	921.09	921.09
Individuals and companies ..... bbls..	.....	354.86	354.86
Total sales and issues ..... bbls..	7,116.86	15,900.63	23,017.49
Fuel oil on hand, August 1, 1928 ..... bbls..	92,349.78	44,756.74	137,106.52
Diesel oil received from Union Oil Co. ..... bbls..	.....	26.19	26.19
Diesel oil sold during July, 1928 ..... bbls..	103.97	26.19	130.16
Diesel oil on hand, August 1, 1928 ..... bbls..	23,964.65	493.25	24,457.90
Miscellaneous transfers ..... bbls..	301.84	629.11	930.95
Gasoline and kerosene pumped for The Panama Canal ..... bbls..	1,819.81	2,943.19	4,763.00
Gasoline pumped for individuals and companies ..... bbls..	.....	27,532.65	27,532.65
Oil pumped for individuals and companies ..... bbls..	530,430.68	673,485.18	1,203,915.86
Oil pumped for U. S. Navy ..... bbls..	5,353.00	42,500.46	47,853.46
Total fuel oil, gasoline, and kerosene handled ..... bbls..	545,126.16	763,017.41	1,308,143.57
Admeasurement of vessels:			
U. S. equivalent certificates issued	29	1	30
Measured for Panama Canal net tonnage	9	1	10
Remeasured for Panama Canal net tonnage	23	.....	23
Panama Canal net tonnage corrected	7	5	12
U. S. equivalent tonnage corrected	13	9	22
Service of harbor equipment:			
Tugs, total operating hours	475	389½	864½
Launches, total operating hours	1,354½	1,734	3,088½
Revenue from tug service, pilotage, etc.:			
Tug revenue	$14,022.50	$12,377.50	$26,400.00
Pilotage	18,285.00	8,867.00	27,152.00
Seamen	12,560.00	10,780.00	23,340.00
Launch service	1,753.50	3,440.50	5,194.00
Wharfage	16,383.82	6,406.71	22,790.53
Ships measured	110.00	50.00	160.00
Miscellaneous	1,022.35	586.50	1,608.85
Ships repaired at Panama Canal shops:			
Commercial	68	24	92
U. S. Army and Navy	7	6	13
Panama Canal equipment	4	7	11
Totals	79	37	116
Vessels dry docked:			
Commercial	8	8	16
U. S. Army and Navy	.....	2	2
Panama Canal equipment	.....	2	2
Totals	8	12	20
Clearances issued	271	282	553
Bills of health issued	276	288	564

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal..	579	3,326,720	2,041,615	544	3,105,373	1,927,498
Vessels entering port but not transiting Canal.	65	281,130	168,804	17	74,238	51,041
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	119	682,661	414,689	98	579,821	357,891
Ships clearing.						
All vessels, including those transiting Canal..	576	3,298,683	2,024,183	539	3,098,548	1,912,759
Vessels clearing port but not transiting Canal.	65	271,968	163,368	17	85,074	48,622
Vessels transiting Canal and handling passengers and cargo at terminal ports.....	114	663,585	402,427	97	564,379	348,583

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,608	889	2,497	174	211	385
From Pacific ports	240	73	313	255	192	447
Total disembarking	1,848	962	2,810	429	403	832
Embarking:						
For Atlantic ports	1,492	667	2,159	156	236	392
For Pacific ports	228	378	606	234	133	367
Total embarking	1,720	1,045	2,765	390	369	759
Remaining on board:						
From Atlantic to Pacific ports	1,833	2,229	4,062	1,783	2,210	3,993
From Pacific to Atlantic ports	1,569	2,074	3,643	1,623	1,787	3,410
From Atlantic to Atlantic ports	685	149	834	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	14	477	491
Total remaining on board	4,087	4,452	8,539	3,420	4,474	7,894
Total arriving	5,935	5,414	11,349	3,849	4,877	8,726
Total departing	5,807	5,487	11,304	3,810	4,843	8,653

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	272	52	19.1
Pacific to Atlantic	237	50	21.1
Totals	509	102	20.1

In addition to the aforesaid, 65 passenger-carrying vessels called at the port of Cristobal and 4 at Balboa without transiting the Canal, making a total of 171 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of July, 1928:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$2,996.84	$11,352.82	$30,899.15	$134.09	$7,454.66	$52,837.56
Government vessels	235.85	2,683.89	13,230.96	.....	1,327.14	17,477.84
Panama Railroad vessels	9.45	17.88	2,208.08	799.45	342.97	3,377.83
Total sales, July, 1928	3,242.14	14,054.59	46,338.19	933.54	9,124.77	73,693.23
Total sales, July, 1927	2,691.41	13,939.85	35,004.87	989.21	8,785.42	61,410.76
Total sales, July, 1926	3,225.31	10,810.19	37,245.48	797.23	4,718.05	56,796.26
Sales at Balboa to:						
Commercial vessels	1,569.48	13,073.08	22,038.95	503.33	5,061.07	42,245.91
Government vessels	344.46	3,036.63	14,870.93	1,017.00	915.31	20,194.33
Panama Railroad vessels	.....	.....	.....	28.46	.....	28.46
Total sales, July, 1928	1,913.94	16,109.71	36,909.88	1,548.79	5,976.38	62,468.70
Total sales, July, 1927	1,609.13	14,796.73	44,371.58	340.14	5,616.69	66,734.27
Total sales, July, 1926	1,454.85	10,349.87	27,692.13	569.41	3,164.74	43,231.00

The aggregate sales to Government vessels during the month was $37,672.17, to Panama Railroad vessels, $3,406.29; and to other commercial vessels, $95,083.47; making the total sales to all vessels $136,161.93.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of July, 1928, as compared with the corresponding month in 1927 and 1926:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	July, 1928.	July, 1927.	July, 1926.
Gatun	222	256	478	12	11	23	501	503	440
Pedro Miguel	225	261	486	17	17	34	520	531	463
Miraflores	226	258	484	17	17	34	518	527	455
	Number of vessels put through locks.								
Gatun	238	271	509	39	30	69	578	598	514
Pedro Miguel	241	273	514	56	53	109	623	628	533
Miraflores	241	273	514	58	50	108	622	634	530

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	28	28	29
Panama Canal equipment	23	62	60
Launches (under 20 tons)	7	8	8
Panaman Government vessels	3	3	3
Vessels for repairs	8	8	8

The total consumption of water for lockages and loss in leakage was as follows in July, 1928, as compared with the preceding month and the corresponding month in 1927:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	2,054,850,000	1,714,930,000	1,547,360,000
Leakage	20,000,000	30,000,000	20,000,000
Totals, July, 1928	2,074,850,000	1,744,930,000	1,567,360,000
Totals, June, 1928	1,962,830,000	1,669,670,000	1,507,340,000
Totals, July, 1927	2,049,880,000	1,696,540,000	1,623,920,000

HYDROGRAPHY.

In the following tabulation the hydrographic conditions in the Canal Zone and vicinity during the month of July, 1928, are shown in comparative form:

	July.		July—Years of record.		
	1928.	1927.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Chagres River at Alhajuela:					
Monthly mean discharge	2,127	6,197	6,197	1,248	2,837
Maximum momentary discharge	11,379	37,700	[1] 37,700	.....	.....
Gatun Lake watershed:					
Total yield	5,262	14,663	14,663	2,677	7,205
Net yield	4,665	14,156	14,156	1,898	6,656
Draft on Gatun Lake for lockages and power	2,812	2,760	2,812	[2] 1,244	[2] 2,203

[1] July 22, 1927. [2] Not including July, 1914.

The total yield of the Gatun Lake watershed for the month of July was 27 per cent below the 15-year July average, or 5,262 c. f. s., compared with an average of 7,205 c. f. s. Maximum and minimum July total yields of record are 14.663 c. f. s. in 1927, and 2,677 c. f. s. in 1914, respectively. The Lake varied in elevation from 85.23

feet on the 3d to 85.70 feet on the 11th, averaged 85.48 feet and ended at elevation 85.44 feet. There was an increase in storage during the month of 228 million cubic feet. The net yield for the month was 12.5 billion cubic feet.

Miraflores Lake varied from elevation 54.66 feet on the 4th to 53.13 feet on the 5th, averaged 53.87 feet and ended at elevation 53.84 feet. Two hundred and forty-one c. f. s. was wasted over the Miraflores spillway.

SEISMOLOGY.

Three seismic disturbances were recorded during the month, all of which had the epicenter over 1,000 miles distant.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 4,767,000 kilowatt hours and the computed water consumption was 3,761,119,368 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 5,300 kilowatt hours, with a fuel oil consumption of 23.39 barrels.

In addition to the usual operating and maintenance work performed, 45 work orders comprising 56 items of additions or repairs were completed on 30 vessels during the month. There were 350 work orders issued during the month, as compared with 368 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 79 vessels at Cristobal and 37 at Balboa. Eight vessels were drydocked at Cristobal and 12 at Balboa. The annual overhaul of submarines *O–7*, and *O–10* was started during the month. The annual overhaul of the mineplanter *Gen. Wm. M. Graham* was completed during the month.

MUNICIPAL ENGINEERING DIVISION.

Work was performed on several improvments in the cities of Colon and Panama, and in the Canal Zone. The usual maintenance work was performed on roads, streets, and walks, and the sewer and water systems. The amount of water pumped during the month totaled 726,642,250 gallons.

DREDGING DIVISION.

East Culebra, West Culebra, Cucaracha, and Lirio slides showed practically no movements during July. There were no other slides and no delays to shipping during the month.

The total excavation during July was 218,895 cubic yards, as folows:

Items.	Wet excavation.			Character, of work.
	Earth.	Rock.	Total.	
Work excavation:				
Canal prism, Gaillard Cut—				
Project No. 2	7,950	24,150	32,100	Maintenance.
Project No. 9	4,500	40,650	45,150	Maintenance.
Maintenance	1,700	9,700	11,400	Maintenance.
Canal prism, Pacific entrance—				
Project No. 1		54,700	54,700	Maintenance.
Maintenance	19,150	1,550	20,700	Maintenance.
Balboa inner harbor—				
Project No. 1		3,800	3,800	Maintenance.
Maintenance	2,550		2,500	Maintenance.
Plant excavation:				
Naval Air Station, Coco Solo fill	47,000		47,000	Auxiliary.
Dredging sand at Chame	1,495		1,495	Auxiliary.
Totals	84,345	134,550	218,895	

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and twenty-two trips were made, and 137 Panama Canal, 6 U. S. Army, and 2,381 other vehicles, a total of 2,524 ,were ferried across the Canal.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal and Panama Railroad quarters on July 31, 1928, totaled 21,331, composed of 7,330 Americans, 2,640 of whom were men, 2,174 women, and 2,516 children; 197 Europeans, 86 of whom were men, 32 women, and 79 children; and 13,804 West Indians, 4,124 of whom were men, 2,579 women, and 7,101 children. The total number of persons in quarters on July 31, 1927, was 20,791.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of July 18, 1928, with a comparison of the working force for the preceding month and for July, 1927:

	As of July 18, 1928.			Total employees.	
	Gold.	Silver.	Total.	June, 1928.	July, 1927.
Operation and Maintenance:					
Office	42	59	101	80	78
Electrical	155	173	328	336	326
Municipal Engineering	81	669	750	777	700
Lock Operation	226	704	930	933	817
Dredging	183	924	1,107	1,061	1,111
Mechanical	441	840	1,281	1,250	1,277
Marine	215	707	922	912	823
Fortifications	23	376	399	301	166
Totals	1,366	4,452	5,818	5,650	5,298
Supply Department:					
Quartermaster	197	1,700	1,897	1,941	1,897
Subsistence	7	103	110	113	106
Commissary	220	1,154	1,374	1,349	1,272
Cattle Industry	5	134	139	136	156
Washington Hotel	8	92	100	102	104
Transportation	55	211	266	262	252
Totals	492	3,394	3,886	3,903	3,787
Accounting Department	195	8	203	201	209
Health Department	284	849	1,133	1,145	1,031
Executive Department	482	299	781	794	777
Totals	961	1,156	2,117	2,140	2,017
Panama Railroad Company:					
Superintendent	49	268	317	344	284
Transportation	65	118	183	186	176
Receiving and Forwarding Agency	86	1,076	1,162	1,411	1,642
Coaling Stations	49	257	306	288	290
Totals	249	1,719	1,968	2,229	2,392
Grand totals, July, 1928	3,068	10,721	13,789	.....	.....
Grand totals, June, 1928	3,038	10,884	.....	13,922	.....
Grand totals, July, 1927	2,946	10,548	.....	.....	13,494

Additions to the gold force on the Isthmus in July were as follows: Employed in the United States, 14; reemployed in the United States, 6; employed on the Isthmus, 30; reemployed on the Isthmus, 16; total, 66. Separations from the gold force totaled 33, as follows: Resigned, 21; discharged, 8; retired, 3; died, 1. At the end of the month there were on file 102 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 161 deaths occurred during the month of July, 1928, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 14.92 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 24; diarrhea and enteritis, 19; organic diseases of the heart, 11; nephritis (acute and chronic), 11; and penumonia (broncho and lobar), 9. There were 6 deaths from cancer, 5 from apoplexy, 1 from diphtheria, and 1 from influenza. There were 17 deaths among nonresidents of the Isthmus. These are not included in the above statistics.

There were 266 live births, and 12 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 25.76 per 1,000 population. Deaths among children under 1 year of age numbered 40, giving an infant mortality rate of 150.38.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during July was 193, of whom 21 were employees (6 white and 15 colored), 20 were members of employees' families (2 white and 18 colored), 23 were Canal Zone agriculturists, 41 were other civilian nonemployees, and 88 were Army and Navy personnel. Of the 41 employees and members of employees' families, 18 were probably

infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick.

There were 2 deaths from malaria, both of colored nonemployees living in the city of Panama.

RECEIPTS AND SALES OF MATERIALS AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $294,136.88, of which $272,906.80 was for the Department of Operation and Maintenance and $21,230.08 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to $42,387.76.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of June, 1928, as compared with June, 1927, together with the figures for the fiscal year as compared with the fiscal year 1927.

It is impossible to submit figures for the month of July at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	Month.		Fiscal year ending June 30.	
	June, 1928.	June, 1927.	1928.	1927.
Tolls	$2,016,277.34	$1,959,542.72	$26,943,513.11	$24,217,185.32
Other receipts	337,208.27	289,642.37	3,600,907.34	3,574,643.27
Total transit revenues	2,353,485.61	2,249,185.09	30,544,420.45	27,791,828.59
Total transit expenses	1,104,678.05	1,094,894.78	12,319,575.59	12,180,734.79
Net transit revenues	1,248,807.56	1,154,290.31	18,224,844.86	15,611,093.80
Three per cent capital charge	614,221.58	609,589.16	7,343,774.39	7,309,248.28
Transit surplus	634,585.98	544,701.15	10,881,070.47	8,301,845.52
Business revenues	1,466,862.57	1,781,710.12	16,929,247.24	15,878,654.57
Business expenses	1,526,222.69	1,902,423.72	16,192,527.81	15,002,117.77
Net business revenues	[1] 59,360.12	[1] 120,713.60	736,719.43	876,536.80
Three per cent capital charge	60,543.93	59,313.34	781,864.15	744,496.74
Business surplus	[1] 119,904.05	[1] 180,026.94	[1] 45,144.72	132,040.06
Combined revenues	3,820,348.18	4,030,895.21	47,473,667.69	43,670,483.16
Combined expenses	2,630,900.74	2,997,318.50	28,512,103.40	27,182,852.56
Net revenue	1,189,447.44	1,033,576.71	18,961,564.29	16,487,630.60
Three per cent capital charge	674,765.51	668,902.50	8,125,638.54	8,053,745.02
Combined surplus	514,681.93	364,674.21	10,835,925.75	8,433,885.58

[1] Indicates credit.

Respectfully,

M. L. WALKER,
Governor.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *August 27, 1928.*

No. 426.

The Hydrographic Office received the following information from the Pilot in Charge, Lighthouse Subdivision, The Panama Canal:

"CRISTOBAL HARBOR.

"Effective August 24, 1928, the flashing white beacon located 550 yards, 156 degrees from Margarita Point, was permanently discontinued. (Signed) F. KARIGER."

"BALBOA HARBOR.

"Temporary Gas Buoy No. 20 was permanently discontinued, effective August 24, 1928, and on the same date Electric Beacon No. 18½ was established.

"The beacon has been placed on the southeastern extremity of dock No. 4, and exhibits a fixed red light, electric, 200 candle power. Focal plane 45 feet above mean low water springs. (Signed) F. KARIGER."

M. L. WALKER,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending August 25, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Jamaica	Pacific Steam Navigation Co	August 19		377	
Magellan	Pacific Steam Navigation Co	August 19	August 19	4	[1]
Calamares	United Fruit Co	August 19	August 19	4	238¾
Ancon	Panama Railroad S. S. Line		August 19		726
Illinois	French Line		August 19		681
Spreewald	Hamburg-American Line		August 19		101
Bowden	United Fruit Co		August 19		479
Napierian	Leyland Line	August 19	August 20	[1]	166½
Theodore Roosevelt	Fred Olsen & Co	August 19	August 20	255	[2]
Parismina	United Fruit Co	August 19	August 20	832	115
Manizales	North German Lloyd	August 19	August 25	326	146
Targis	North German Lloyd	August 20	August 20	[1]	205
Breda	Royal Netherlands S. S. Co	August 20	August 21	235	272
Alvarado	Pacific Steam Navigation Co	August 20	August 21	277	143
Essequibo	Pacific Steam Navigation Co	August 20	August 21	4	67
Loreto	Pacific Steam Navigation Co	August 20	August 21	31	105
Perou	French Line	August 20	August 22	38	742
Pastores	United Fruit Co	August 20	August 22	1,109	58
William M.	R. Feuillebois	August 21	August 21	[1]	28
Stuyvesant	Royal Netherlands S. S. Co	August 21	August 22	45	[2]
Virgilio	Italian Line	August 21	August 23	387	[2]
Ucayali	Peruvian Line	August 21	August 23	2,143	[2]
Nictheroy	Pacific Steam Navigation Co	August 22	August 23	59	50
Orbita	Pacific Steam Navigation Co	August 22	August 23	78	297
San Francisco	Hamburg-American Line	August 22	August 23	[1]	94
Albingia	Hamburg-American Line	August 22	August 23	156	[2]
Elmshorn	Hamburg-American Line	August 22	August 24	37	394
Coppename	United Fruit Co	August 22	August 22	932	26
Sixaola	United Fruit Co	August 22	August 23	946	474
Saramacca	United Fruit Co	August 23	August 23	2	176
Favorita	American Fruit & S. S. Corp	August 23	August 23	256	1
Australien	Danish East Asiatic Co	August 23	August 23	83	(2)
Pacific Enterprise	Furness, Withy & Co	August 23	August 24	[1]	335
Cid	Pacific Steam Navigation Co	August 23	August 24	112	10
Santa Cecelia	Grace Line	August 23	August 24	67	45
San Jose	United Fruit Co	August 23	August 24	726	45
Leme	Italian Line	August 23	August 24	[1]	11
Atrato	Colombian Transport Co		August 24		160
Notre Dame de Fourviere	French Line	August 23	August 25	10	647
Salvador	Pacific Steam Navigation Co	August 24		440	
Cissy	Mexican Petroleum Co	August 24	August 24	19	[2]
Dramatist	T. & J. Harrison Line	August 24	August 25	600	[2]
Durazzo	Hamburg-American Line		August 25		115
Heredia	United Fruit Co	August 25		284	
Phoenix	American Tankers Corp	August 25		9,260	
Stella	Panama Mail S. S. Co	August 25		684	
Acajutla	Pacific Steam Navigation Co		August 25		1,169
Favorita	American Fruit & S. S. Corp	August 25	August 25	[1]	303
Eemdijk	Holland-American Line	August 25	August 25	[1]	149
Stuyvesant	Royal Netherlands S. S. Line	August 25	August 25	[1]	790
Managui	United Fruit Co	August 25	August 25	24	141
Linda S.	R. Feuillebois	August 25	August 25	[1]	45
Banan	United Fruit Co	August 25	August 25	[1]	338½

[1] No cargo discharged. [2] No cargo laded. [3] 215 pounds.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending August 25, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
U. S. Grant	U. S. Government	August 20	August 20	12	1
William A. McKenney	Mystic S. S. Co	August 20	August 29	700	700
American Star	Charles Nelson & Co	August 18	August 23	802	802
Theodore Roosevelt	Fred Olsen & Co	August 21	August 23	1,421	
Ferndale	Fearnley & Eager	August 22	August 22	4	
Australien	East Asiatic Co	August 23	August 24	110	

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, August 25, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Gustaf E. Reuter [1] [2]	18	16.40	19	6.25	19	13.05	20	1.20	Swedish	Anglo-Saxon Pet. Co	407 0	55 0	20 0	Gothenburg, Swed'n	Los Angeles, Calif.	Ballast		6,384	4,497
Mexican	18	21.50	19	6.45	19	13.54	19	14.55	American	Amer.-Hawaiian Line	472 3	57 3	21 0	Boston, Mass.	Portland, Oreg	General	4,150	9,258	6,944
Cape York [2]	19	1.00	19	7.40	19	14.38	19	15.45	British	Can.-Amer. S. S. Co	410 0	54 0	16 6	Rotterdam, Holland	Vancouver, B. C.	Ballast		6,927	4,802
Helen Olmsted [1]	19	8.20	19	12.12	19	19.00	19	20.15	American	Texas S. S. Co	425 8	57 0	22 2	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,484	5,216
Illinois	18	12.35	19	13.30	19	20.41	19	21.55	French	French Line	400 0	52 0	16 8	Havre, France	Talcahuano, Chile	General	1,623	6,336	4,301
Munaires	19	15.55	19	16.15	20	9.17	20	10.28	American	Munson S. S. Line	385 0	53 0	19 0	Baltimore, Md	Tacoma, Wash	General	2,833	5,577	4,225
Hanley	19	16.50	19	17.40	20	11.24	20	12.35	American	Norton, Lilly & Co	440 0	56 0	18 0	New York, N. Y.	Everett, Wash.	Ballast		8,310	6,005
Point Breeze [1] [2]	19	16.45	20	6.10	20	13.55	20	15.00	American	Atlantic Refining Co	364 0	51 0	14 0	Philadelphia, Pa.	San Francisco, Cal.	Lubricating oil	2,725	5,113	3,571
La Perla	20	3.10	20	6.20	20	13.46	20	16.15	American	United Fruit Co	325 2	48 1	21 5	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	837	4,033	2,261
Nordhval [2]	19	22.25	20	6.25	20	14.48	20	16.15	Danish	W. L. Comyn & Co	380 0	53 6	26 0	Tampa, Fla.	Osaka, Japan	Phosphates	7,503	6,194	4,467
Hague Maru	20	00.55	20	7.15	20	14.55	20	16.15	Japanese	Osaka Shosen Kaisha	407 0	50 0	24 0	New York, N. Y.	Kobe, Japan	General	6,614	6,533	4,772
Bethore	20	1.25	20	7.20	20	15.56	20	17.00	American	Ore S. S. Corp.	550 3	72 2	24 0	New York, N. Y.	Cruz Grande, Chile	Ballast		15,476	4,354
S–14 [3]			20	9.15	20	16.55			American	U. S. Navy	231 0	21 10		Cristobal, C. Z	Balboa, C. Z				
Bagaduce [4]			20	9.15	20	16.55			American	U. S. Navy	149 3	30 0		Cristobal, C. Z	Balboa, C. Z				
S–15 [3]			20	9.15	20	17.00			American	U. S. Navy	231 0	21 10		Cristobal, C. Z	Balboa, C. Z				
S–16 [3]			20	9.15	20	17.00			American	U. S. Navy	231 0	21 10		Cristobal, C. Z	Balboa, C. Z				
Swan [5]			20	7.15	20	15.56			American	U. S. Navy	180 0	35 6		Cristobal, C. Z	Balboa, C. Z	(7)			
Robin Gray	20	13.30	20	13.40	20	20.34	20	22.30	American	Isthmian S. S. Lines	424 8	55 0	26 0	Baltimore, Md	Tacoma, Wash	Steel, general	8,705	7,472	5,542
Albert E. Watts [1]	20	14.12	20	14.20	20	21.18	20	22.30	American	Sinclair Navigation Co	430 2	59 2	19 0	New Orleans, La.	La Libertad, Ecud'r	Ballast		7,776	5,426
Toronto [2]	20	15.55	20	17.20	21	9.30	21	10.36	Norwegian	Barber S. S. Line	388 0	52 2	20 6	New York, N. Y	Hongkong, China	General	4,387	5,673	3,592
Theodore Roosevelt [2]	19	21.25	20	18.30	21	11.38	23	13.18	Norwegian	Fred Olsen & Co.	425 5	55 0	24 6	Oslo, Norway	Vancouver, B. C.	General	7,025	7,593	5,637
Sunoil [1] [2]	20	20.30	21	6.10	21	13.25	21	14.40	American	Sun Oil Co	480 6	66 0	22 0	Chester, Pa.	Los Angeles, Calif.	Ballast		9,610	6,396
Canadian Miller	20	21.35	21	6.10	21	14.16	21	15.30	British	Can. Nat. Steamships	400 3	52 0	18 3	Montreal, Canada	Vancouver, B. C.	General	2,511	5,892	4,186
Tuscarora [1]	20	22.18	21	7.20	21	15.11	21	16.25	British	Anglo-Amer. Oil Co.	425 0	57 0	17 8	Liverpool, England	Talara, Peru	Ballast		7,133	5,159
Kina	21	6.30	21	7.35	21	16.17	21	18.00	Danish	Knut Knutsen O. A. S	385 0	53 3	23 6	Aalborg, Denmark	Corral, Chile	General	5,939	6,090	4,623
Breda	20	15.10	21	11.16	21	18.24	21	19.23	Dutch	Royal Neth. S. S. Co.	402 6	58 3	22 2	Hamburg, Germany	Corral, Chile	General	4,603½	7,384	4,769
Loreto [2]	20	18.50	21	13.45	21	20.15	22	1.15	British	Pacific Steam Nav. Co	404 0	54 2	16 6	Hull, England	Coronel, Chile	General	3,483	7,334	5,037
Antonio	21	11.35	21	13.55	21	22.10	22	00.52	British	Andrew Weir & Co	400 0	52 4	25 9	Casa Blanca, Mor	Auckland, N. Z.	Phosphates	6,920	5,803	4,098
Saale [2]	21	11.55	21	14.55	21	21.10	22	2.28	German	North German Lloyd	470 0	61 3	21 0	Hamburg, Germany	Vancouver, B. C.	General	3,536	9,335	6,844
Mary Ann [6]			21	13.30	21	15.37			American	United Fruit Co				Cristobal, C. Z	Gatun, C. Z	Ballast		7	7
Hartbridge	20	20.20	22	6.15	22	13.08	22	14.10	British	Grigsby McGee & Co.	390 0	55 0	15 0	Boston, Mass.	Vancouver, B. C.	Ballast		6,179	4,521
Ferndale [2]	21	20.20	22	6.15	22	13.40	22	16.35	Norwegian	Fenley & Eger	382 7	53 4	24 6	Tampa, Fla.	Kobe, Japan	(8)		7,100	6,082	4,222
Dorothy Luckenbach	22	2.45	22	7.15	22	14.03	22	14.36	American	Luckenbach Line	448 9	60 2	24 6	Boston, Mass.	Seattle, Wash	General	5,600	9,294	6,861
Kentuckian	21	23.30	22	8.00	22	14.26	22	15.45	American	Amer.-Hawaiian Line	414 5	53 7	20 0	Boston, Mass.	Tacoma, Wash	General	3,192	7,049	4,941

[1] Tanker. [2] Motor ship. [3] Submarine. [4] Tug. [5] Minesweeper. [6] Launch. [7] Towing barge *No. 2*. [8] Cotton and phosphates.

Ribera	22	8.40	22	11.45	22	18.42	22	20.10	British	Anglo-Mexican Oil Co.	387.0	51.0	26 3	Tampico, Mexico	Brisbane, Australia	Asphalt	5,658	5,469	4,042
Rudby	22	13.15	22	13.35	22	20.26	22	22.00	British	Ropner & Co	390.0	55.0	16.0	Norfolk, Va.	Vancouver, B. C.	Ballast		5,888	4,305
Richmond [4]	22	00.40	22	13.35	22	21.40			American	Aiken Tow. & Barge Co.	135.0	30.0	15.0	Tampico, Mexico	Buenaventura, Col.	([12])		426	90
No. 101 [9]	22	00.40	22	13.35	22	21.40			American	Robt. J. McArdle Co.	150.0	30.0	2.0	Tampico, Mexico	Buenaventura, Col.	Ballast		342	342
Berwick Law	22	9.55	22	14.20	22	22.18	22	23.50	British	Andrew Weir & Co	420.0	54.0	25 0	Galveston, Texas	Melbourne, Aust'lia	Sulphur	6,600	6,719	5,110
Virgilio [2]	21	15.25	23	6.10	23	12.43	23	13.51	Italian	Nav. Gen. Italian.	482 0	61.0	24.7	Genoa, Italy	Valparaiso, Chile	General	1,200	12,941	9,329
Santa Elisa	22	21.13	23	6.10	23	13.01	23	17.15	American	Grace Line	360 0	51.7	25.5	New York, N. Y.	Talcahuano, Chile	General	2,452	5,957	4,325
Albingia	22	3.40	23	7.10	23	14 29	23	15 46	German	Hamburg-AmericanLine	376.0	51.0	23 2	Hamburg, Germany	Champerico, Guat	General	4,817	5,551	3,751
Lubrafol [1] [2]	22	23.45	23	7 25	23	14.36	23	15.46	Belgian	Soc. Anonyme de Armement Industre and Commerce.	440.8	57.4	18.6	Houston, Texas	San Francisco, Cal.	Ballast		7,615	4,976
Nordvard [3]	23	00 55	23	8.25	23	15.14	23	16.20	Norwegian	Texas S. S. Co	377 6	54.0	23.8	Port Arthur, Texas	Manila, P. I.	Case oil	7,303	6,108	4,358
Orbita	22	14.58	23	10.07	23	16.46	23	17.50	British	Pacific Steam Nav. Co	550.3	67.3	29 4	Liverpool, England	Talcahuano, Chile	General	3,737	16,844	11,731
Australien [4]	23	5.45	23	10.25	23	17.25	24	17.15	Danish	East Asiatic Co.	410.0	54.0	18.0	Copenhagen, Den.	Vancouver, B. C.	General	4,140	7,031	5,338
West Notus	23	10.45	23	10.55	23	18.04	23	22.05	American	McCormick S. S. Co	410.5	54.3	18.0	Buenos Aires, Arg	San Francisco, Cal.	Coffee, cocoa	2,154	6,583	5,014
Nicktheroy	22	23.12	23	12.15	23	19.03	23	20.10	British	Royal Mail S. P. Co	450.2	58.4	21.11	Rotterdam, Holland	Vancouver, B. C.	General	3,807½	8,874	6,558
Atlas [5]	23	12.05	23	12.35	23	19.55	23	21.15	American	Standard Transp. Co.	430 0	58.2	20.6	New York, N. Y.	Los Angeles, Calif	Ballast		7,348	5,164
Koranton	23	13.45	23	14.10	23	20.57	23	22.05	British	Empire Shipping Co	412 0	55 5	17.0	Algiers, Algeria	Vancouver, B. C.	Ballast		6,811	4,810
Sunewarkco	23	14.08	23	14.35	23	21.46	24	00.02	American	Transmarine Lines.	321.0	46.0	20.6	Mobile, Ala.	Seattle, Wash	General	3,266	3,984	2,628
Riberton	23	15 35	23	17.40	24	9 21	24	10 51	British	R. Chapman & Son	409 6	54.0	18 0	Newcastle-on-Tyne	Portland, Oreg.	Ballast		5,761	4,129
Elmshorn	22	16.55	24	8.30	24	15.43	24	17.15	German	Hamburg-AmericanLine	397.0	54 0	23 2	Antwerp, Belgium	Buenaventura, Col.	General	4,470	5,965	4,288
Santa Isabel	23	14.00	24	6.15	24	13 32	24	15.05	American	Isthmian S. S. Lines	251.0	43 6	22.0	Baltimore, Md	Honolulu, T. H.	Sulphate, general	2,377	2,823	1,740
Santa Cecelia	23	17.38	24	6.20	24	13.12	24	17 15	American	Grace Line	408.0	55.0	19.4	New York, N. Y.	Callao, Peru	General	2,683	6,672	4,905
President Hayes	24	6.00	24	7.20	24	14.09	24	22 16	American	Dollar Line	502 1	62.2	27.0	New York, N. Y.	Singapore, Ma. Pn.	General	4,258	12,023	8,443
Port Dunedin [3]	23	23.15	24	7.15	24	15.07	25	1.25	British	Com'lth & Dom. Line.	466 9	59 8	20 0	London, England	Napier, N. Z	General	3,400	9.959	7,226
Hermion	24	00 40	24	8.45	24	16.49	24	18 05	Norwegian	Bruusgaard Kiosterud.	389 0	54.0	21.6	Antwerp, Belgium	Seattle, Wash	General	5,200	5,746	4,232
Atrato [2]	16	15.37	24	8.35	24	17.17	25	1.25	Colombian	Colombian Transp. Co	94.0	24.0	7.0	Cristobal, C. Z	Buenaventura, Col.	General	160	160	92
Stizstad [1] [2]	23	22.42	24	9.55	24	17.21	24	18 25	Norwegian	Richfield Oil Co.	385.0	55.0	15.0	Hull, England	Los Angeles, Calif	Ballast			
Pacific Enterprise [2]	23	19.40	24	12.10	24	18.28	24	19.35	British	Furness, Withy & Co.	435.0	60.1	21.0	Glasgow, England	Vancouver, B. C.	General, bananas	2,422	9,641	6,989
Aurora [1] [2]	24	12.25	24	12.35	24	19.19	24	20.25	American	Standard Transp. Co.	431.0	59 0	17.6	New York, N. Y.	Los Angeles, Calif	Ballast		7,825	5,102
Chattanooga City	24	13.05	24	13.15	24	20.34	25	2 45	American	U. S. Steel Products Co.	424.0	56.0	27.0	Baltimore, Md	Shanghai, China	Steel, general	8,081	7,611	5,450
Cid	23	22.22	24	14.00	24	21.40	24	22.50	British	Pacific Steam Nav. Co	264.8	41.2	17.8	New York, N. Y.	Callao, Peru	([13])	2,613	2,746	1,626
Cissy	24	7 00	24	19 10	25	8.50	25	10 11	Norwegian	Comp. Mex. Petroleum.	289.5	44.2	19.0	Minatitlan, Mex.	Seattle, Wash	([14])	1,992	2,937	2,080
Durazzo	15	20.45	25	5.55	25	14.31	25	16.10	German	Hamburg-AmericanLine	226.5	34 0	13.0	Cristobal, C. Z	Guayaquil, Ecuador	General	415	1,633	1,041
Notre Dame de Fourviere	23	21 18	25	6.15	25	13.03	25	14.10	French	French Line	427 3	58 3	20 2	Havre, France	Vancouver, B. C.	General	2,833	8,043	5,454
Penmar	25	00.55	25	7.15	25	14 29	25	15.30	American	Calmar S. S. Corp	385.3	51 3	24 10	Philadelphia, Pa.	Seattle, Wash	Steel, general	6,863	6,224	4,465
Plow City	24	23 35	25	8.00	25	14.48	25	16.10	American	Charles Nelson & Co.	324.0	46.2	18.3	Baltimore, Md	Seattle, Wash	General	2,500	3,983	2,631
Marore	25	8 25	25	8.35	25	15.19	25	16.25	American	Ore S. S. Corp.	550.3	72 2	20.6	Baltimore, Md	Cruz Grande, Chile	Ballast		15,551	4,297
Chance [10]	22	16.00	25	9.30	25	18.18			American	A. C. Brown	76.0	16.6		New London, Conn	Guayaquil, Ecuador	Ballast		38	34
Bullaren [4]	25	8.30	25	9 55	25	16 48	25	20.00	Swedish	General S. S. Corp	436.0	56.0	14.0	Gothenburg, Swed'n	Los Angeles, Calif	Ballast		7,614	5,384
Dramatist	24	9.30	25	10.07	25	17.14	25	18.46	British	T. & J. Harrison	410.0	52.0	17.10	Liverpool, England	Vancouver, B. C.	Ballast		6,202	4,154
Happy Days [11]	23	12.25	25	10.20					American	I. C. Capley	181.2	27.2	11.6	New York, N. Y.	Gulf of Calif., Mex.	Ballast		563	244
Acajutla	8	18.40	25	11 12	25	18.25	25	20 00	British	Pacific Steam Nav. Co	215 7	33.5	17 4	Cristobal, C. Z	Champerico, Guat	General	1,169	1,273	706
Manizales	19	18 20	25	11.30	25	18.14	25	21.50	German	North German Lloyd	216.0	33.0	13 4	Cristobal, C. Z	Guayaquil, Ecuador	General	119	1,132	741
Devon	24	16 50	25	13.45	25	21.04	25	22.24	British	Federal Steam Nav. Co	473.0	59.0	30.6	Newport, Monm'th	N. Plymouth, N.Z.	General	8,197	9,957	6,801
Jadden	25	15.30	25	20.10	26	10 05	25	23.19	American	Roosevelt Line (S. B.).	410 5	54 2	23 8	New York, N. Y.	Adelaide, Australia	([15])	4,195	7,614	5,823

[1] Tanker. [2] Barge. [3] Auxiliary yacht. [4] Yacht. [5] Towing barge *No. 101*. [6] Steel, sugar, and automobiles. [7] Case oil and gasoline. [8] Case oil, automobiles, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
K. R. Kingsbury [1]	18	23.45	19	6.03	19	13.35	19	13.35	American	Standard Oil Co. of Cal	440 0	58 2	28 6	San Francisco, Cal.	Baltimore, Md.	Gasoline	10,000	9,033	5,938
Solana [1]	19	00.30	19	6.49	19	14.22	19	16.16	American	Associated Oil Co	419 5	56 5	25 9	Los Angeles, Calif.	Bayonne, N. J.	Gasoline	9,245	7,060	5,025
Killerig [16]	18	23.50	19	7.17	19	14.00	19	16.45	British	Merritt, Chapman Co	172 2	30 0	13 0	High seas	Kingston, Jamaica.	Ballast		575	439
Tomaru [17]			19		19	14.00	19	14.00	American	L. T. Lehman	60 0	14 6		Balboa, C. Z	Cristobal, C. Z.	Ballast		39	20
Jamaica	19	2.20	19	7.21	19	15.27			British	Pacific Steam Nav. Co	220 0	34 0	11 4	Champerico, Guat	Cristobal, C. Z.	[21]	357	1,187	622
Sithonia	19	6.50	19	8.09	19	16.50	20	6.10	British	H. M. Thompson	420 0	56.0	23.9	Crofton, B. C	Garston, England.	Lumber	7,321	6,753	4,823
Robin Goodfellow	19	7.40	19	8.37	19	16.55	19	16.55	American	Seas Shipping Co	424 8	55 2	26 0	Englewood, B. C	New York, N. Y.	Lumber	7,140	7,473	5,536
Magellan	19	8.15	19	9.07	19	18.25	19	22.15	British	Pacific Steam Nav. Co	461 5	59 2	26 6	Talcahuano, Chile	Liverpool, England	[24]	5,135	8,817	6,061
Manizales	19	10.00	19	111.3	19	18.20	25	11.30	German	Roland Line.	216 0	33 0	11 0	Guayaquil, Ecuador	Cristobal, C. Z.	General	294	1,132	741
Canadian Importer	19	10.50	19	11.48	19	19.55	19	23.00	British	Can. Nat. Steamships	399 3	52 4	23 3	Vancouver, B. C.	Montreal, Canada	Lumber, general.	5,890	5,891	4,186
Cragness	19	14.35	19	15.07	19	22.40	19	22.40	British	Sir W. R. Smith & Sons	412 0	55 0	24 6	Victoria, B. C	Hamburg, Germany	Lumber	7,700	7,022	5,296
Keifuku Maru	19	17.00	19	17.34	20	12.20	20	13.00	Japanese	Kokusai Kisen Kaisha.	385 0	51 0	26 0	Bais, P. I.	Boston, Mass	Sugar	7,799	6,213	4,670
Crowl [18]			19		19				American	U. S. Army				Balboa, C. Z	Pedro Miguel, C. Z.				
San Ugon [1]	19	20.20	20	6.06	20	13.35	20	18.17	British	Anglo-Mexican Pet. Co.	413 0	53 4	24 0	Los Angeles, Calif	Lizard Head, Eng. [25]	Gasoline	7,451	5,976	4,069
El Aleto [1] [19]	19	19.00	20	6.33	20	14.10	20	15.35	British	C. T. Bowring.	440 0	57 5	26 9	Talara, Peru	Halifax, N. S.	Crude oil	9,702	7,555	5,049
Ashby	19	19.15	20	7.12	20	15.10	20	16.15	British	Sir R. Ropner & Co.	405 0	53 5	23 0	Vancouver, B. C.	Hampton Roads. [25]	Wheat	4,124	5,523	4,068
Agwistar	19	19.40	20	8.02	20	15 55	20	18 30	American	Grace Line	370 0	53 1	19 0	Iquique, Chile.	New York, N. Y.	Nitrates	4,124	5,523	4,068
Birk	20	1.00	20	8.30	20	19 12	20	18 50	Norwegian	Chile S. S. Corp	359 0	52 0	23 0	Antofagasta, Chile.	Baltimore, Md.	Nitrates, copper	6,200	4,751	3,160
Targis	20	4.30	20	9.19	20	18 00	21	2 44	German	North German Lloyd.	429 0	55 0	26 0	Valparaiso, Chile	Bremen, Germany	General	5,956½	7,533	5,413
Alvarado	20	7.50	20	10.11	20	18 45	21	2 00	British	Pacific Steam Nav. Co	303 0	43 0	15 0	Paita, Peru	New York, N. Y.	[24]	565	2,844	1,748
San Nicolas [1] [20]	13	10.26	20	11.29	20	18 35	20	18 35	British	Lago Shipping Co.	305 0	50 0	10.0	Balboa, C. Z	Aruba, D. W. I.	Ballast		2,594	
Essequibo	20	11 20	20	12.24	20	19.12	21	00.12	British	Pacific Steam Nav. Co	450 3	57 8	22 3	Talcahuano, Chile	New York, N. Y.	[27]	1,949	9,037	6,176
Sidney M. Hauptman	20	16.55	20	17.35	21	12 45	21	12.45	American	McCormick S. S. Co	401 4	53 2	26.6	Seattle, Wash	Baltimore, Md.	Lumber, general.	7,663	7,082	5,167
Sea Dog [21]			20		20				Panaman	M. Arosemena.	25 6	7 6		Gatun Lake, C. Z.	Cristobal, C. Z				
Markland [19]	21	3.30	21	6.07	21	13.50	21	13.50	Norwegian	O. & A. Irgens-Bergen	408 3	55 3	25 8	Los Angeles, Calif.	Avonmouth, Eng.	Gasoline	8,558	6,474	4,321
Chetopa	20	17 30	21	6 38	21	14 50	21	14 50	American	Nelson S. S. Co.	324 0	46 2	23 0	Tacoma, Wash	New York, N. Y.	Lumber, copper	4,420	3,984	2,628
Suspeareo	21	1.30	21	6 55	21	14.55	21	15.20	American	Transmarine Lines.	324 0	46 2	23 0	Portland, Oreg.	Port Newark, N. J.	Lumber	4,000	3,984	2,612
Heffron	21	1.35	21	7.36	21	15 45	21	15 45	American	Heffron S. S. Co	440 0	56 0	27 8	Everett, Wash.	Baltimore, Md.	Lumber	8,000	8,312	6,097
Ucayali	21	1.15	21	8.29	21	18.38	24	7.05	Peruvian	Peruvian Line	374 7	46 3	21 3	Callao, Peru	Cristobal, C. Z.	General	2,143	4,466	2,406
Henry D. Whiton	21	5.15	21	8.52	21	19.20	21	19 20	American	Union Sulphur Co	356 0	51 6	26 0	Gray's Har., Wash.	New York, N. Y.	Lumber	5,600	5,367	2,925
Alaskan	21	6.30	21	9.10	21	19.42	21	19.42	American	Amer.-Hawaiian Line	415.0	53 7	23 9	Portland, Oreg	Boston, Mass	General	4,741	7,380	5,339
Grant [22]	20	10.34	21	10.17	21	18 28	21	23.40	American	U. S. Army, Q. M. C	488 0	55 4	24 0	San Francisco, Cal	Brooklyn, N. Y.	General	2,244		
Rio Claro	21	10.40	21	11.38	21	20.55	21	21.50	British	Thompson S. S. Line.	363.0	53.2	26 0	Portland, Oreg.	Queenstown, Ire.	Wheat	6,848	5,967	3,484

[1] Tanker. [16] Wrecking tug. [17] Yacht. [18] U. S. Army launch. [19] Motor ship. [20] August 13 for drydocking. [21] Launch. [22] U. S. Army transport. [23] Coffee, sugar, hides, and wood.
[24] Nitrates, sugar, and cotton. [25] For orders. [26] Balsam, coffee, hides, and hats. [27] Copper, cotton, hides, and beans.

Benga' Maru	21	11.55	21	12.36	21	21.35	22	1.35	Japanese	Nippon Yusen Kaisha	400.0	54.5	22.0	Yokohama, Japan	Liverpool, England	[24]	5,880	5,827	4,125
Brockabeck	21	12.30	21	13.28	21	23.25	22	8.55	British	Golden Line	346.0	50.9	21.3	N. West'ster, B. C.	Manitoba, Canada	Lumber	4,600	4,074	2,982
Lewis Luckenbach	21	13.30	21	14.20	21	23.55	21	23.55	American	Luckenbach Line	496.0	68.2	30.7	Portland, Oreg	Boston, Mass	Lumber, general	11,000	11,487	8,762
Willpolo	21	17.00	21	17.48	22	11.05	22	11.05	American	Williams S. S. Line	386.0	52.2	23.6	Everett, Wash.	New York, N. Y.	Lumber, general	6,526	5,680	4,080
Alaska	21	19.30	22	6.49	22	14.30	22	16.20	Norwegian	Chr. Haaland	410.0	54.1	23.0	San Antonio, Chile	Copenhagen, Den.	General	7,189	6,563	4,799
Pacific Exporter [19]	21	21.10	22	7.42	22	15.07	22	15.07	British	Furness, Withy & Co.	435.9	60.9	37.4	Vancouver, B. C.	London, England	General	8,450	9,633	6,998
Charles Christenson	21	21.37	22	8.39	22	17.40	22	17.40	American	Sudden & Christenson	409.7	54.2	23.6	Seattle, Wash	New York, N. Y.	Lumber	6,934	6,693	4,915
Moveria [19]	22	6.30	22	9.40	22	18.05	22	18.05	British	Donaldson Line	385.2	51.5	27.6	Vancouver, B. C.	Glasgow, Scotland	General	5,828	6,576	4,724
San Francisco [19]	21	20.05	22	10.50	22	19.53	23	11.07	German	Hamburg-AmericanLine	432.3	59.4	25.0	Vancouver, B. C.	Bremen, Germany	General	6,781	8,454	6,344
Felix Taussig	22	14.35	22	15.18	22	22.53	23	5.00	American	Isthmian S. S. Lines	395.0	55.0	27.6	Vancouver, B. C.	Liverpool, England	Lumber, general	8,400	7,056	4,964
Henry S. Grove	22	17.15	22	17.54	23	11.15	23	14.50	American	Argonaut S. S. Line	404.6	53.9	25.6	Seattle, Wash	Baltimore, Md	Lumber, general	5,387	6,755	4,683
San Quirino [1]	22	17.15	23	6.21	23	14.20	23	14.20	British	Anglo-Mexican Pet. Co.	407.2	52.2	27.6	Los Angeles, Calif	Lizard Head, Eng. [25]	Gasoline	7,347	6,156	4,212
Julia Luckenbach	23	1.00	23	7.10	23	16.00	23	16.00	American	Luckenbach Line	436.6	57.2	26.6	Portland, Oreg	New Orleans, La.	General	7,826	8,543	6,402
San Jose	23	6.00	23	8.13	23	17.40	24	16.05	American	United Fruit Co	330.0	44.6	17.6	San Francisco, Cal.	Port Limon, C. R.	General	582	3,670	2,353
Leme [19]	23	9.50	23	10.32	23	18.35	24	12.05	Italian	Nav. Gen. Italian	450.0	57.0	27.8	Vancouver, B. C.	Trieste, Italy	General	9,233	8,805	6,497
American Star	18	18.20	23	14.55	23	22.50	23	22.50	American	Charles Nelson & Co.	376.8	52.2	22.9	San Francisco, Cal.	New York, N. Y.	Lumber, general	6,104	5,699	4,167
King Malcolm [19]	23	13.30	23	14.39	23	21.40	24	4.00	British	Dodd, Thompson & Co.	400.3	59.0	26.0	San Francisco, Cal.	Hull, England	Barley	8,649		
Point Judith	24	4.54	24	6.03	24	13.25	24	15.05	American	Swayne & Hoyt	289.0	44.1	20.6	Vancouver, B. C.	New Orleans, La.	Lumber, general	3,056	2,902	1,962
George H. Jones [1]	24	5.04	24	6.41	24	16.25	24	16.25	American	Standard Shipping Co.	429.3	59.8	27.0	San Francisco, Cal.	New York, N. Y.	Gasoline	9,563		
Eir	23	18.45	24	7.11	24	19.10	24	19.30	Norwegian	E.I. Dupont de Nemours	400.0	53.0	26.0	Tocopilla, Chile	Jacksonville, Fla.	Nitrates	8,400	6,199	4,513
Richmond [29]	22	21.40	24	7.10	24	16.15	24	18.55	American	Aiken Tow. & Barge Co.	135.0	21.6	15.0	Balboa, C. Z.	Pensacola, Fla.	Ballast			
Dio	24	1.00	24	8.06	24	18.00	24	18.00	American	Redwood Line	386.8	52.2	24.6	San Francisco, Cal.	Mobile, Ala	[31]	6,574	5,708	4,131
Nebraskan	24	9.00	24	10.00	24	18.38	24	18.38	American	Amer.-Hawaiian Line	472.0	60.0	28.8	Seattle, Wash	Boston, Mass	General	6,288	9,032	6,655
Lincoln Ellsworth [1] [19]	24	9.00	24	10.18	24	19.00	24	19.00	Norwegian	T. Hannevig & Co.	381.0	55.2	26.2	San Francisco, Cal.	Land's End, Eng. [25]	Gasoline	7,624	5,785	3,627
Salvador	24	10.05	24	10.51	24	19.50			British	Pacific Steam Nav. Co	215.0	33.5	14.0	Champerico, Guat	Cristobal, C. Z.	[32]	440	1,270	735
Key West	24	12.05	24	12.59	24	20.50	24	20.50	Norwegian	Scand.-So. Pacific Line	380.0	53.2	24.0	Valparaiso, Chile	Europe	General	6,728		
Lisbeth	24	16.00	24	17.04	25	11.40	25	13.15	Norwegian	Ole Andreas Knutsen	300.0	47.3	20.0	San Antonio, Chile	Europe	Copper, nitrates	3,942	2,925	2,023
La Pita [30]			24		24				American	L. F. Hauss				Balboa, C. Z.	Gatun Lake, C. Z.	Ballast			
San Manuel [1]	24	17.50	25	6.14	25	14.15	25	14.15	British	Eagle Oil Transp. Co.	407.0	52.3	24.6	Los Angeles, Calif	Lizard Head, Eng. [25]	Gasoline	7,246	6,183	4,343
Stela	25	3.20	25	7.20	25	15.00			Norwegian	Panama Mail S. S. Co.	195.1	32.0	13.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	684	985	696
Eemdijk	25	7.00	25	7.50	25	15.35	25	22.40	Dutch	No. Pacific Coast Serv	470.0	58.8	25.6	Vancouver, B. C.	Antwerp, Belgium	General	9,726	8,514	6,066
George W. Barnes [1]	25	14.05	25	14.42	25	21.45	25	21.45	American	American Oil Co	416.8	56.1	27.0	Los Angeles, Calif	Baltimore, Md	Gasoline	9,100	6,763	4,759

[1] Tanker. [24] Canned red salmon. [29] Tug. [30] Launch. [31] Lumber, sugar, and general. [32] Coffee, sugar, and wood.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
August 19	Napierian	Leyland Line	Puerto Cortes, Honduras.	August 19	Bowden	United Fruit Co	Mobile, Ala.
August 19	Parismina	United Fruit Co	New Orleans via Habana.	August 19	Calamares	United Fruit Co	New York via Habana.
August 19	Calamares	United Fruit Co	Port Limon, Costa Rica.	August 19	Ancon	Panama R. R. S. S. Line	New York via Haiti.
August 20	Perou	French Line	St. Nazaire via wayports.	August 20	Parismina	United Fruit Co	New Orleans via wayports.

* Other than ships passing through the Canal.

(Continued on next page.)

MOVEMENTS OF OCEAN VESSELS. —Continued from page 53.

PORT OF CRISTOBAL.—Continued.

*ARRIVALS.

Date.	Vessel.	Line.	From—
August 20..	Pastores	United Fruit Co	New York via Habana.
August 20..	Ville Riestra [33]	Costa Rican Government	Colon, R. P.
August 21..	Mayeri	United Fruit Co	New York, N. Y.
August 21..	Stuyvesant	Royal Netherlands S. S. Co	Hamburg via wayports.
August 21..	William M. [34]	G. I. Bryan	Colon, R. P.
August 22..	Coppename	United Fruit Co	New Orleans, La.
August 22..	Sixaola	United Fruit Co	New York via Kingston.
August 23..	Favorita	American Fruit & S. S. Corp.	New Orleans, La.
August 23..	Saramacca	United Fruit Co	Bocas del Toro, R. P.
August 23..	Banan	United Fruit Co	Mobile, Ala.
August 25..	Favorita	American Fruit & S. S. Corp.	San Blas, R. P.
August 25..	Manaqui	United Fruit Co	New York via wayports.
August 25..	Stuyvesant	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
August 25..	Heredia	United Fruit Co	New Orleans via Habana.
July 20..	Polarland	Estrada Hermanos	N. Y. via Puerto Colombia
August 25..	Banan	United Fruit Co	Perme, R. P.
August 25..	Linda S. [35]	Surgeon Brothers	Colon, R. P.

*DEPARTURES.

Date.	Vessel.	Line.	For—
August 20..	Napierian	Leyland Line	Puerto Colombia.
August 20..	Ville Riestra [33]	Costa Rican Government	Colon, R. P.
August 21..	Mayari	United Fruit Co	Puerto Colombia.
August 21..	William M. [34]	G. I. Eyran	Bluefields, Nicaragua.
August 22..	Perou	French Line	Havre via wayports.
August 22..	Stuyvesant	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
August 22..	Pastores	United Fruit Co	Port Limon, Costa Rica.
August 23..	Coppename	United Fruit Co	Pto. Colombia via Bocas.
August 23..	Sixaola	United Fruit Co	New York via wayports.
August 23..	Banan	United Fruit Co	Perme, R. P.
August 23..	Saramacca	United Fruit Co	New Orleans, La.
August 23..	Favorita	American Fruit & S. S. Corp	San Blas, R. P.
August 25..	Favorita	American Fruit & S. S. Corp.	New Orleans, La.
August 25..	Manaqui	United Fruit Co	New York via Kingston.
August 25..	Stuyvesant	Royal Netherlands S. S. Co	Amsterdam via wayports.
August 24..	Polarland	Estrada Hermanos	Rio Hacha.
August 25..	Linda S. [35]	Surgeon Brothers	Bluefields, Nicaragua.

[33] Motor boat. [34] Schooner. [35] Motor schooner.

PORT OF BALBOA.

August 19..	Cricamola [36]	Chiriqui Land Co	Port Armuelles, R. P.	August 20..	Craftsman [37]	R. J. McArdle Contracting Co	Buenaventura, Colombia.
August 20..	Craftsman [37]	R. J. McArdle Contracting Co	Buenaventura, Colombia.	August 21..	Martha [36]	Chr. Hannevig	Pedregal, R. P.
August 20..	Martha [36]	Chr. Hannevig	Buenaventura, Colombia.	August 22..	A. B. de O'Barrio [38]	Pacific Fruit Co	Bayano River, R. P.
August 22..	Climan [36]	Isthmian Land & Fruit Co	El Real, R. P.	August 23..	San Luis [38]	Chiriqui Land Co	Port Armuelles, R. P.
August 22..	A. B. de O'Barrio [38]	Pacific Fruit Co	Bayano River, R. P.				
August 23..	San Luis [38]	Chiriqui Land Co	Port Armuelles, R. P.				
August 25..	Craftsman [37]	R. J. McArdle Contracting Co	Buenaventura, Colombia.				

[36] Motor ship. [37] Tug. [38] Motor schooner. * Other than ships passing through the Canal.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1928, of passenger vessels in the New York–Cristobal service of the Panama Railroad Steamship Line, in which the passenger steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 3 p. m.	Leave Port-au-Prince p. m.	Arrive Cristobal a. m.	Leave Cristobal 3 p. m.	Leave Port-au-Prince p. m.	Arrive New York a. m.
Cristobal	August 21	August 26	August 29	September 2	September 5	September 10.
Ancon	September 5	September 10	September 13	September 17	September 20	September 25.
Cristobal	September 18	September 23	September 26	September 30	October 3	October 8.
Ancon	October 2	October 7	October 10	October 14	October 17	October 22.
Cristobal	October 16	October 21	October 24	October 28	October 31	November 5.
Ancon	October 30	November 4	November 7	November 11	November 14	November 19.
Cristobal	November 13.	November 18.	November 21.	November 25.	November 28.	December 3.
Ancon	November 27.	December 2	December 5	December 9	December 12.	December 17.
Cristobal	December 11.	December 16.	December 19.	December 23.	December 26.	December 31.
Ancon	December 24.	December 29.	January 1	January 6	January 9	January 14.

NOTE.—Effective May 1, steamers sail daylight saving time. Due to discontinuance of the daylight saving time, departures after steamship *Cristobal*, September 18, will be at 3 p. m. standard time.

Steamers sail at 3 p. m. from Pier 65, North River, foot of West 25th St., New York.

Both steamers call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of steamers at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

West coast freight service.—In addition, a regular freight service is maintained from New York, with occasional calls at Haiti and to Cristobal, Buenaventura and Ecuadorian ports. Particulars upon application to the Panama Railroad Co., 24 State Street, New York, or Balboa Heights, Canal Zone.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.20 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessels furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Circulars.

Acting Governor.

THE PANAMA CANAL,
EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *August 31, 1928.*

To all concerned.—Effective September 3, 1928, and until further notice, Colonel Harry Burgess, U. S. A., Engineer of Maintenance, will be Acting Governor.

M. L. WALKER.
Governor.

Duties of President of Panama Railroad Company.

PANAMA RAILROAD COMPANY,
OFFICE OF THE PRESIDENT,
BALBOA HEIGHTS, C. Z., *August 31, 1928.*

To all concerned.—Effective September 3, 1928, and until further notice, Colonel Harry Burgess, U. S. A., Second Vice President, will perform such duties of the President as relate to the operations of the Company on the Isthmus.

M. L. WALKER,
President.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Panama Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, Chilean Line, Navigazione Generale Italiana, Hamburg-American Line. The Panama Mail and Hamburg-American Line charge $6 for the trip, the others $10 for first-class passage. The Chilean Line has also a rate of $4 for intermediate class, and the Panama-Pacific Line a rate of $6 for tourist class. The several services together afford about 4 transits of the Canal each way every week.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., September 5, 1928. No. 5.

Canal Traffic During August.

During the month of August, 1928, 526 commercial vessels and 6 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,199,069.31, and on the launches, $42.39, or a total tolls collection of $2,199,111.70.

The daily average number of transits of seagoing vessels for the month was 16.97, and the daily average tolls collection, $70,937.72. The average amount of tolls paid by each of the commercial transits was $4,180.74, as compared with $4,143.58 for the month of July. Traffic for August showed a slight increase over July, both with respect to the number of transits and the amount of tolls collected.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 8 months of the current calendar year, with the daily averages of transits and tolls:

Month.	Totals for month.		Daily average.	
	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,370.57	17.48	71,271.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
August	526	2,199,069.31	16.97	70,937.72
Totals	4,184	17,320,819.68	17.14	70,986.96

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *August 28, 1928.*

No. 427.

The following are quoted from Notice to Mariners, Washington, August 18, 1928:

"*Colombia, Cartagena Harbor, Boca Chica, Light buoy missing.*—The Second Officer of the American steamer *J. A. Bostwick* reports that on July 28, 1928, the gas buoy marking the southern side of Boca Chica entrance to Cartagena Harbor was missing.

"Approximate position: 10° 19′ N., 75° 35′ W."

"*West Indies, Martinique. Information concerning lights*—The master of the *Doris Hamlin* reports that the light on Caravelle Peninsula is very unreliable.

"The master also reports that a new light is to be established on Cabrit Islet, southern end of Martinique Island.

"Further notice will be given.

"Approximate position: 14° 23′ 30″ N., 60° 52′ 30″ W."

M. L. WALKER,
Governor.

Notice to Mariners.—Aids to Navigation.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 5, 1928.*

No. 433.

1. The following cablegram was received by the Captain of the Port of Cristobal:

"Buenaventura, Colombia. September 5th.—The white light, first buoy entering port side of harbor was accidently put out. (Signed) T. LOPEZ, Captain of the Port."

* * * * * * *

H. BURGESS,
Acting Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 1, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Nitro [2]	24	13.10	26	6.04	26	13 05	27	7.23	American	U. S. Navy	483 10	60 10	27 10	Hampton R'ds, Va.	Mare Island, Calif.	Navy cargo	3,439		
San Leonardo [1]	25	18.45	26	6.12	26	13.17	26	14 35	British	Eagle Oil Transp. Co.	400 8	54 2	21 6	Ardrossan, Eng.	Los Angeles, Calif.	Ballast		5,962	3,650
Dakotan.	25	19.00	26	7.27	26	13.55	26	15.05	American	Amer.-Hawaiian Line	407 7	53 7	19 6	Boston, Mass.	Portland, Oreg.	General	4,076	7,156	5,094
Pacific Hemlock	26	8.05	26	8.15	26	14.57	26	16.15	American	Dimon S. S. Line.	409.7	54 2	19 6	New York, N. Y.	Tacoma, Wash.	General	5,710	6,630	4,878
Stensby [3]	26	8.15	26	9.15	26	17.13	27	7.55	Danish	W. L. Comyn & Co.	350.0	50 6	23 6	Houston, Texas.	Kobe, Japan	Scrap iron	6,295	4,917	3,516
Point Bonita.	26	9.20	26	9.35	26	17.05	26	18 10	American	Gulf-Pacific Line	324 0	46 2	19 0	New Orleans, La.	Powell River, B.C.	Sulphur, general	2,307	3,984	2,617
Canadian Victor	26	1.30	26	10 40	26	17.30	26	18 45	British	Can. Nat. Steamships	400.0	52 0	20.1	Montreal, Canada	Adelaide, Australia	General	2,521	5,956	4,172
New Britain	26	12 25	26	12.40	26	19 47	26	21.30	American	Calif. & East'n S.S. Co.	386 8	52.2	16.6	Philadelphia, Pa	Seattle, Wash	General, steel	2,971	5,684	4,082
Phoenix [1]	25	15 00	26	17.10	27	9.31	27	11 32	American	American Tankers Corp	400 8	54.0	18 9	Baton Rouge, La.	Los Angeles, Calif.	Ballast		6,336	4,389
Fishpool.	26	18.25	26	18 35	27	11 30	27	12 55	British	Seaboard Lumber Sales.	379 0	56 0	14.7	Civita Vecchia, It.	Vancouver, B. C.	Ballast		5,487	4,180
Suportco.	26	21 05	27	6 00	27	13 21	27	14.30	American	Transmarine Lines.	324 0	46 2	18 4	Newark, N. J.	Los Angeles, Calif.	General	1,500	3,984	2,612
Montgomery City	26	21 55	27	6 00	27	14.06	27	16 00	American	Isthmian S. S. Lines	424 2	56.2	25.6	Mobile, Ala	Darien, China.	General	8,008	7,611	5,450
El Lobo [1]	27	3 00	27	7.20	27	15 34	27	16 50	British	Atlantic Refining Co	385 2	51 0	17 0	Philadelphia, Pa.	La Libertad, Ecu'd.	Ballast		4,851	3,326
San Jose.	27	4.05	27	7.35	27	15 54	27	16.50	American	United Fruit Co.	330 0	44 6	19 6	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee.	470	3,670	2,353
Port Victor	27	3.55	27	8.40	27	16.24	27	17.25	British	Com'lth & Dom. Line	470 0	58 0	24 0	New York, N. Y.	Adelaide, Australia.	General	3,300	9,336	6,682
Glenn Mayne [3]	25	9.00	27	9.15	27	17 55	28	00 38	American.	Otto Paulsen.	142 0	31 6	12 6	New York. N. Y.	Los Angeles, Calif.	Ballast		436	235
Edward Luckenbach	27	6.10	27	9.30	27	16.51	27	18 07	American	Luckenbach Line	436.6	57.0	23 0	New Orleans, La	Tacoma, Wash	General	5,037	8,543	6,427
Dana [1]	25	7 10	27	10.45	9-2	14.15	9-2	19 04	Danish	Danish Government.	138 0	23.0	15 0	Copenhagen Den.	Pacific Ocean.	Ballast		373	164
Ucayali.	26	17.05	27	10 45	27	18.01	27	19.55	Peruvian	Peruvian Line	374.7	46 3	18 10	Covenas, Colombia	Callao, Peru.	General, cattle.	275	4,466	2,405
Pacific.	27	15.15	27	15.20	28	9.45	28	14.30	American	Argonaut S. S. Line.	400 0	56 0	25.0	Baltimore, Md	Tacoma, Wash	Steel, general.	7,899	6,517	4,723
Eurana.	27	15.25	27	18 28	28	11 31	28	12 45	American	Planet Line	400.0	56 2	24.0	Baltimore, Md	Vancouver, B. C.	Steel, general.	7,395	7,381	5,595
Mariposa [5]			27		27	17 28			American	Amer. Banana Corp.				Cristobal, C. Z.	Gatun, C. Z.	Ballast		4	4
Major Pullen [5]			27		27	8.29			American	U. S. Army				Cristobal, C. Z.	Gatun, C. Z.				
Silverguava [3]	27	20.55	28	6.15	28	14.02	28	15 15	British	Silver Line, Ltd	425.0	58 0	22 6	New York, N. Y.	Manila, P. I.	General	5,262	8,216	6,037
W. L. Steed [1]	27	21.45	28	6.16	28	14 23	28	15.40	American	Huasteca Petroleum Co.	416 8	56.1	22 0	Baltimore, Md.	Los Angeles, Calif.	Ballast		6,751	4,795
San Carlos [1]	28	7.35	28	8 00	28	15 02			British	Lago Shipping Co.	305.0	50 0	11 0	Aruba, D. W. I.	Balboa, C. Z.	Ballast			
City of Cambridge	28	2.30	28	10.35	28	17 37	28	18 48	British	Geo. Smith & Sons.	454 0	58.2	25.10	New York, N. Y.	Sydney, Australia.	General	5,217	9,183	6,954
Jane Maersk [1]	28	9 05	28	11 50	28	18.09	28	22 12	Danish	Anglo-Saxon Pet. Co.	456 8	59.7	17.0	Hamburg, Germany	Los Angeles, Calif.	Ballast		8,102	5,623
Willkeno.	28	15.00	28	15.10	28	22.19	29	1 50	American	Williams S. S. Line.	415 0	55.6	18.9	Baltimore, Md	Seattle, Wash.	General	4,025	7,750	5,805
Venezuela.	27	21.15	29	6.08	29	13.20	29	22 40	American	Panama Mail S. S. Co.	380 0	48 7	24 3	New York, N. Y.	San Francisco, Cal.	General	2,286	6,033	4,353
Vestvard [3]	28	19.50	29	6.15	29	13 56	30	1 45	Norwegian.	Klosters Rederi.	386.0	52.9	23.9	Port Arthur, Texas	Fremantle, Aust'ia	Case oil	6,600	6,168	4,343
Jane Christenson.	29	4.10	29	7.15	29	14.24	29	15.45	American	Sudden & Christenson.	409.5	54.2	16.8	Baltimore, Md.	San Francisco, Cal.	General	1,819	6,615	4,966
Orient.	29	6.50	29	7.30	29	14 50	29	16.05	American	Oriental Navigation Co.	376.0	52.0	18 0	Wilmington, Del.	Portland, Oreg.	General	3,540	5,455	3,879

[1] Tanker. [2] Ammuniton ship. [3] Motor ship. [4] Scientific ship [5] Launch.

Jamaica	19	15.27	29	9.40	29	16.39	29	17.50	British	Pacific Steam Nav. Co.	220.0	34.0	13.11	Cristobal, C. Z.	Champerico, Guat.	General	841	1,187	622
Teno	28	23.55	29	10.45	29	16.56	29	17.50	Chilean	South American Line	421.8	56.0	25.5	New York, N. Y.	Valparaiso, Chile	General	2,319	7,764	4,672
Ivo Racic	29	15.40	29	17.00	30	9.49	30	11.28	Yugoslav	Baburizza & Co	350.0	49.0	21.0	Castel Sucurac, Yugoslav.	Antofagasta, Chile.	Cement, sardines	4,864	4,470	3,288
Kansan	30	5.50	30	6.40	30	14.22	30	15.35	American	Amer.-Hawaiian Line	404.6	53.9	17.6	Boston, Mass.	Seattle, Wash.	General	3,492	6,779	4,927
Katrina Luckenbach	30	6.35	30	7.35	30	15.20	30	16.20	American	Luckenbach Line	446.0	52.0	23.6	Boston, Mass.	Seattle, Wash.	General	6,146	8,508	6,179
Rialto [3]	29	17.30	30	13.20	30	19.35	30	23.20	Italian	Nav. Libera-Triestina	430.0	55.3	18.0	Trieste, Italy	Vancouver, B. C.	General, bananas	3,423	7,789	6,025
Chilcop	30	13.20	30	13.30	30	20.50	30	24.00	American	Chile S. S. Co	411.0	54.0	23.0	New York, N. Y.	Chanaral, Chile	General	5,017	6,609	4,973
Chilore	29	3.55	31	6.15	31	13.08	31	14.10	American	Ore S. S. Corp	549.0	72.0	22.8	Norfolk, Va.	Cruz Grande, Chile	Ballast		14,538	9,348
Port Hunter	30	16.25	31	6.20	31	14.57	31	16.00	British	Com'lth & Dom. Line	481.0	62.0	26.0	S. Shields, England	Dunedin, N. Z.	General	2,904	10,825	7,968
California	31	6.10	31	7.00	31	14.02	9–1	00.25	American	Panama-Pacific Line	574.4	80.3	27.0	New York, N. Y.	San Francisco, Cal.	General	2,800	24,506	17,565
Lemuel Burrows	30	17.30	31	7.25	31	15.06	31	16.15	American	Blanchard Lumber Co.	437.0	63.0	19.6	New York, N. Y.	Aberdeen, Wash.	Ballast		9,105	6,004
Pat Doheny [1]	30	20.50	31	8.20	31	15.46	31	17.00	American	Richfield Oil Co	430.0	59.2	19.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,978	5,840
Sacramento	31	4.45	31	9.35	31	17.10	31	18.05	American	Charles Nelson & Co.	380.0	53.0	19.0	Norfolk, Va.	Los Angeles, Calif.	Oil pipe, general	4,186	5,653	4,122
Cauca [3]	29	15.35	31	9.40	31	17.50	31	21.09	Colombian	National Navigation Co.	107.2	22.0	9.1	Cristobal, C. Z.	Buenaventura, Col.	General	335	238	163
Tsuyama Maru	31	6.20	31	11.00	31	18.10	31	19.35	Japanese	Nippon Yusen Kaisha	445.0	58.0	23.0	Galveston, Texas	Yokohama, Japan	General	6,021	7,956	5,681
Seapool	31	8.14	31	11.15	31	19.44	31	21.09	British	Sir. R. Ropner & Co	379.0	56.0	23.0	Antwerp, Belgium	Tacoma, Wash.	General	6,475	5,521	4,138
Santa Tecla	30	22.40	31	12.10	31	18.56	9–1	1.10	American	N. O. & S. A. S. S. Co.	298.6	40.0	20.8	New Orleans, La.	Talcahuano, Chile	General	2,388	2,832	1,803
Montrolite [1] [3]	31	10.10	31	12.55	31	20.35	1	1.10	British	Imperial Oil Co	510.9	68.3	21.0	Montreal, Canada	Los Angeles, Calif.	Ballast		11,555	7,639
Rapot	30	23.55	31	13.45	31	21.00	1	1.10	German	North German Lloyd	393.0	54.0	19.6	Hamburg, Germany	Valparaiso, Chile	General	2,879	6,583	4,626
Laleham	31	15.35	31	16.40	9–1	9.15	1	12.00	British	Watts, Watts & Co	351.0	53.1	15.0	Boston, Mass.	Arica, Chile	Ballast		5,007	3,370
Bennekom	31	6.30	9–1	6.02	1	13.16	1	16.40	Dutch	Royal Neth. S. S. Co.	449.0	58.0	19.9	Hamburg, Germany	Corral, Chile	General	3,165	7,849	5,806
Lochgoil [3]	31	6.50	1	6.50	1	14.07	1	17.15	British	Royal Mail S. P. Co	485.6	62.3	21.0	Rotterdam, Holland	Vancouver, B. C.	General	2,926	10,803	7,606
Losada [3]	31	20.55	1	11.45	1	20.52	2	00.30	British	Pacific Steam Nav. Co.	404.0	54.2	18.5	Liverpool, England	Corral, Chile	General	3,627	7,221	4,844

[1] Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ammon	25	17.30	26	6.15	26	13.50	26	22.22	German	Hamburg-AmericanLine	348.2	55.3	25.0	Corral, Chile	Hamburg, Germany	General	8,449	7,334	5,221
Hessen	25	16.25	26	7.10	26	15.00	26	22.00	German	Hamburg-AmericanLine	468.5	58.2	27.0	Megallanes, Chile.	Hamburg, Germany	Nitrates, ores	11,097	9,568	6,680
Marija Petrinovic	26	7.40	26	8.43	26	16.00	26	16.00	Yugoslav	Baburizza & Co	400.0	53.0	26.8	Antofagasta, Chile.	London, England	Nitrates, iodine.	8,178	5,808	4,163
Santa Veronica	26	13.45	26	14.44	26	21.30	27	1.40	American	Amer. & Cuban Line	251.0	43.6	18.4	Honolulu, T. H.	New York, N. Y.	[6]	1,844	2,823	1,740
Maltran	26	16.00	26	16.59	27	11.40	27	11.40	American	C. D. Mallory & Co.	333.8	48.0	23.6	Aberdeen, Wash.	New York, N. Y.	Lumber	4,600	4,171	2,827
Penelope [3]	27	4.27	27	6.16	27	13.50	27	15.15	Danzig	German-Amer. Pet. Co.	470.0	63.2	27.0	Los Angeles, Calif.	Hamburg, Germany	Gasoline	11,545	9,302	6,127
Glentworth	26	14.00	27	6.45	27	14.55	27	14.55	British	Canadian Transp. Co.	450.0	55.0	27.0	Pt. Alberni, B. C.	Boston, Mass.	Lumber	8,000	7,999	5,867
Oakmar	26	18.10	27	7.21	28	19.35			American	Calmar S. S. Corp	398.4	51.2	22.3	Gray's Hbr., Wash.	Philadelphia, Pa.	Lumber	5,800	6,327	4,433
Santa Luisa	27	6.45	27	8.01	27	16.35	27	20.40	American	Grace Line	360.2	51.5	24.6	Valparaiso, Chile	New York, N. Y.	[7]	3,719	5,710	4,023
Knoxville City	27	7.15	27	8.45	27	17.50	27	17.50	American	Norton, Lilly & Co	422.0	56.0	26.0	Everett, Wash.	Newark, N. J.	Lumber	6,952	7,611	5,450
British Yeoman [1]	27	3.00	27	10.32	27	19.10	27	19.10	British	British Tankers Co.	440.0	57.1	26.7	Los Angeles, Calif.	England	Gasoline	9,078	7,644	5,070
Habana Maru	26	14.50	27	11.39	27	19.40	28	10.20	Japanese	Osaka Shosen Kaisha	407.0	51.0	22.3	Hongkong, China	Boston, Mass.	[8]	7,082	6,538	4,769
Benjamin Franklin [3]	27	13.00	27	15.35	27	22.45	28	11.10	Norwegian	Norway-Pacific Line	452.0	59.5	27.6	Vancouver, B. C.	Oslo, Norway	Grain, general	8,517	9,082	6,140
Takaoka Maru	27	5.30	27	17.05	28	11.00	28	18.28	Japanese	Nippon Yusen Kaisha	445.0	58.0	22.6	Manila, P. I.	Boston, Mass.	[9]	6,427	7,989	5,856

[1] Tanker. [6] Canned pineapples. [7] Nitrates, copper, and cotton. [8] Beans, oil, rice, and general. [9] Sugar, rice, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Svealand [10]	27	9.15	27	17.05	28	11.43	28	11.45	Swedish	Axel Brostrom & Son	561.1	72.2	33.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	21,000	15,425	4,421
Mary Ellen O'Niel [1 10]	28	2.30	28	6.14	28	14.30	28	14.30	American	Texas S. S. Co.	509.7	70.3	30.3	Los Angeles, Calif.	Baltimore, Md.	Gasoline	17,000	12,425	8,338
Clydefield [1 10]	27	12.30	28	6.46	28	15.25	28	15.25	British	Hunting & Son	420.0	57.5	27.0	San Francisco, Cal.	Land's End, Eng. [13]	Gasoline	8,479	7,132	4,658
Minden	27	15.30	28	7.16	28	15.45	28	18.45	German	North German Lloyd	360.7	51.0	15.0	Champerico, Guat.	Bremen, Germany	Ballast		4,822	3,272
Panama [10]	27	20.15	28	8.08	28	17.20	28	17.20	Danish	East Asiatic Co.	410.0	55.0	28.6	Portland, Oreg.	Copenhagen, Den.	General	8,841	7,027	5,341
J. L. Luckenbach	28	2.00	28	8.32	28	16.40	28	16.40	American	Luckenbach Line	448.9	60.2	30.0	Portland, Oreg.	Boston, Mass.	General	8,000	9,294	6,861
Panaman	28	8.00	28	9.24	28	19.05	28	19.05	American	Amer.-Hawaiian Line	407.7	53.7	24.8	Portland, Oreg.	New York, N. Y.	General	6,547	7,098	5,065
East Indian [10]	28	10.30	28	11.22	28	19.55	28	22.12	American	Ford Motor Co	445.0	58.0	27.6	Aberdeen, Wash.	New York, N. Y.	Lumber	8,258	8,787	6,275
Manchuria	28	12.00	29	6.12	29	13.32	29	13.55	American	Panama-Pacific Line	600.0	65.3	30.0	San Francisco, Cal.	New York, N. Y.	General	7,740	17,044	11,488
Tulsa [11]	24	14.20	29	7.13	29	14.30	30	6.10	American	U. S. Navy	241.0	41.2	13.3	Balboa, C. Z.	Cristobal, C. Z.				
Cauca [10]	29	00.20	29	7.14	29	15.35	31	9.40	Colombian	National Nav. Co.	107.2	23.0	10.0	Buenaventura, Col.	Cristobal, C. Z.	[14]	128	238	163
Lochkatrine [10]	29	9.50	29	10.37	29	17.45	29	23.20	British	Royal Mail S. P. Co.	485.0	62.3	29.6	Vancouver, B. C.	Rotterdam, Holland	Grain, general	9,828	10,802	7,595
William A. McKenney	20	8.00	29	11.10	29	19.05	29	19.05	American	Norton, Lilly & Co.	395.0	55.0	26.0	Seattle, Wash.	Baltimore, Md.	Lumber, ore	8,600	6,993	4,990
Canadian Highlander	29	13.05	29	13.52	29	21.18	30	5.10	British	Can. Nat. Steamships	400.0	52.0	15.0	Wellington, N. Z.	Montreal, Canada	General	1,050	6,192	4,402
Tuscarora [1]	29	19.00	30	6.02	30	13.52	31	10.14	British	Anglo-Amer. Oil Co.	425.0	57.0	26.0	Talara Bay, Peru.	London, England	Gasoline	8,623	7,133	5,159
H. C. Fogler [1]	29	23.00	30	6.43	30	14.30	30	14.30	American	Atlantic Refining Co.	435.0	56.0	27.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,223	7,461	5,159
M. F. Elliott [1]	30	4.25	30	7.09	30	15.05	30	15.05	American	Standard Shipping Co.	425.0	57.2	27.5	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,190	7,481	4,946
Murla	30	00.45	30	8.08	30	16.55	30	22.55	German	North German Lloyd	449.2	58.1	25.7	San Antonio, Chile.	Antwerp, Belgium	General	8,279	7,756	5,378
Swan [12]			30	8.19	30	16.55			American	U. S. Navy	187 10	35.6		Balboa, C. Z.	Cristobal, C. Z.	[15]			
Handicap	30	2.30	30	8.20	30	17.08	30	17.08	Norwegian	Bruusgaard Line	415.3	54.7	25.0	Seattle, Wash.	Rotterdam, Holland	General	7,830	7,296	5,445
Ohioan	30	6.00	30	9.03	30	17.25	30	17.25	American	Amer-Hawaiian Line	407.7	53.7	24.2	Tacoma, Wash.	Boston, Mass.	General	6,085	7,103	4,991
Benarty	30	6.20	30	9.25	30	18.25	30	19.40	British	Wm. Thomson & Co.	420.3	54.0	26.0	San Francisco, Cal.	Avonmouth, Eng.	Barley	8,193	6,413	4,219
Limon	30	7.45	30	10.05	30	18.45	31	16.15	American	United Fruit Co.	330.6	44.5	19.0	San Francisco, Cal.	Port Limon, C. R.	General	445½	3,675	2,229
Laurel	30	8.00	30	10.35	30	19.20	30	19.20	American	States S. S. Co.	426.5	54.0	22.0	Aberdeen, Wash.	Wilmington, Del.	[16]	4,694	6,556	4,874
Sunbeam [1]	30	9.20	30	11.04	30	19.45	30	19.45	American	Sun Oil Co.	429.3	59.2	26.0	Los Angeles, Calif.	Philadelphia, Pa.	Bulk gasoline	9,203	7,709	5,562
Wilhilo	30	10.05	30	11.26	30	20.30	30	20.30	American	Williams S. S. Line	434.3	57.7	26.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	8,150	7,983	5,882
West Mingo	30	5.45	30	12.06	30	20.55	30	20.55	American	Calif. & East'n S. S. Co.	410.0	54.4	24.4	Seattle, Wash.	New York, N. Y.	Lumber	6,967	6,476	4,682
Dixie Arrow [1]	30	11.40	30	13.06	30	21.50	30	21.50	American	Standard Transp. Co.	468.3	62.7	27.6	Los Angeles, Calif.	Providence, R. I.	Gasoline	11,366	9,744	7,140
Shreveport [1]	30	12.10	30	13.51	30	23.30	31	4.04	American	Cities Service Corp.	435.0	56.0	30.0	Los Angeles, Calif.	Philadelphia, Pa.	Crude oil	11,419	7,411	5,109
Laurel Branch	30	8.15	30	14.32	31	00.05	9–2	14.35	British	F. & W. Ritson	360.2	46.0	23.0	Corral, Chile	Liverpool, England	General	5,217	4,182	3,047
Sutorpco	30	15.15	30	16.01	31	11.40	31	11.40	American	Transmarine Lines	324.0	46.2	23.0	Seattle, Wash.	Port Newark, N. J.	Lumber	3,000	3,984	2,612
Carso	30	16.45	30	17.34	31	13.30	31	17.00	Italian	Nav. Libera-Triestina	418.8	53.9	26.0	Antofagasta, Chile.	Azores [13]	Nitrates	8,450	6,215	4,344
Radnor	30	23.45	31	6.55	31	15.25	31	15.25	American	Roosevelt S. S. Co.	434.3	57.7	29.0	Iloilo, P. I.	Newport News, Va.	Sugar, copra	9,846	7,982	5,956
Rochester [11]	28		31	7.28	31	16.40	9–3	6.00	American	U. S. Navy	384.0	64.9	27.6	Balboa, C. Z.	Cristobal, C. Z.				
Feltore	31	4.00	31	8.46	31	18.10	31	18.10	American	Ore S. S. Corp.	449.1	57.2	27.6	Cruz Grande, Chile.	Baltimore, Md.	Ire ore	11,600	7,808	5,139

[1] Tanker. [10] Motor ship. [11] Cruiser. [12] Tender. [13] For orders. [14] Platinum and general. [15] Towing barge *No. 2.* [16] Lumber, piling, and hay.

Suwied	31	6.40	31	8.55	31	17.55	31	17.55	American	Charles Nelson & Co.	324.0	46.2	23.7	Seattle, Wash.	Baltimore, Md.	Lumber, general	4,448	3,983	2,629
Uribe	31	6.05	31	9.58	31	18.00			Colombian	Estrada S. S. Co.	227.4	31.7	13.3	Buenaventura, Col.	Cristobal, C. Z.	Coffee, hides	613	1,154	663
Orduna	30	22.15	31	12.08	31	19.30	31	23.45	British	Pacific Steam Nav. Co.	550.3	67.0	30.8	Talcahuano, Chile	Liverpool, England	General	6,114	17,146	12,015
Point Fermin	31	12.50	31	13.40	31	21.30	31	21.30	American	Swayne & Hoyt	324.0	46.2	21.6	Powell River, B. C.	New Orleans, La.	General	3,460	3,984	2,617
Hanover	31	14.17	31	15.20	31	22.35	31	23.00	American	Tampa Interocean Co.	435.0	57.5	26.0	Fusan, Korea	New York, N. Y.	(22)	7,901	7,982	5,911
Sabotawan	31	15.45	31	16.30	9–1	11.00	9–1	11.00	American	Redwood Line, Inc.	386.8	52.2	23.5	San Francisco, Cal.	Mobile, Ala.	Lumber, general	5,879	5,708	4,138
Albert E. Watts [1]	31	15.50	31	17.20	1	11.35	1	11.35	American	Sinclair Nav. Co.	430.2	59.2	27.0	La Libertad, Peru	Philadelphia, Pa.	Crude oil	10,535	7,776	5,426
Bagaduce [17]	31	14.30	9–1	6.25	1	12.55			American	U. S. Navy	150.0	28.0		High seas	Cristobal, C. Z.				
S–14 [18]	31	14.30	1	6.25	1	12.55			American	U. S. Navy	231.0	20.0		High seas	Cristobal, C. Z.				
S–15 [18]	31	14.30	1	6.24	1	12.55			American	U. S. Navy	231.0	20.0		High seas	Cristobal, C. Z.				
S–17 [18]	31	14.30	1	6.24	1	12.55			American	U. S. Navy	231.0	20.0		High seas	Cristobal, C. Z.				
Zenon	9–1	6.30	1	7.49	1	15.35	1	21.00	French	French Line	425.0	55.0	25.0	Vancouver, B. C.	Havre, France	General	7,794	6,982	4,834
Haarlem	1	7.35	1	8.34	1	16.42	1	19.40	Dutch	Royal Neth. S. S. Co.	361.5	49.6	19.6	Valparaiso, Chile	Hamburg, Germany	General	5,245	4,759	3,660
Tekoa	1	00.10	1	10.27	1	17.16	1	17.15	British	N. Z. Shipping Co.	460.3	62.8	19.6	Oamaru, N. Z.	London, England	Frozen, general	5,161	10,570	7,521
Amerikaland [19]	1	8.05	1	12.58	1	22.45	1	22.45	Swedish	Ore S. S. Corp.	561.1	72.2	33.6	Cruz Grande, Chile.	Baltimore, Md.	Iron ore	21,500	15,560	4,496
Ethan Allen	1	12.05	1	13.29	2	00.10	2	7.30	American	American Pioneer Line	439.6	60.2	27.0	Manila, P. I.	New York, N. Y.	(23)	10,840	8,978	6,525
Seattle [19]	1	13.55	1	14.42	1	21.09	1	23.45	German	Hamburg-American Line	461.5	61.0	25.0	Vancouver, B. C.	Hamburg, Germany	General	7,187	9,267	6,834
Flatbottom [19]	31	9.50	1	9.18	1				American	United Fruit Co.				Balboa, C. Z.	Gatun Lake, C. Z.				
Eno [20]	31	9.50	1	9.20	1				American	United Fruit Co.				Balboa, C. Z.	Gatun Lake, C. Z.	(24)			
No. 31023 [21]	31	9.50	1	9.20	1				American	United Fruit Co.				Balboa, C. Z.	Gatun Lake, C. Z.	(25)			
No. 31052 [21]	31	9.50	1	9.20	1				American	United Fruit Co.				Balboa, C. Z.	Gatun Lake, C. Z.	(25)			

[1] Tanker. [17] U. S. Navy tug. [18] Submarine. [19] Motor barge. [20] Launch. [21] Barge. [22] Lumber, sugar, and general. [23] Sugar, copra, and coconut oil. [24] Towing barges. [25] Towed by launch *Eno*.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
August 26	Pastores	United Fruit Co	Port Limon, Costa Rica.
August 26	Danzig	Hamburg-American Line	Hamburg via Habana.
August 27	Ulua	United Fruit Co	New York via Habana.
August 27	Inapaquina [26]	United Fruit Co	Colon, R. P.
August 28	Denver [27]	U. S. Navy	Puerto Cabezas, Honduras.
August 29	Cristobal	Panama Railroad S. S. Line	New York via Haiti.
August 29	Suriname	United Fruit Co	New Orleans, La.
August 29	Zacapa	United Fruit Co	New York via Kingston.
August 29	Resolute [28]	D. L. Lynton	Colon, R. P.
August 30	Coppename	United Fruit Co	Bocas del Toro, R. P.
August 30	Teutonia	Hamburg-American Line	Hamburg via wayports.
August 30	Virginia	American Fruit & S. S. Co	New Orleans, La.
August 30	Anachucuna [26]	United Fruit Co	Colon, R. P.
August 31	Anachucuna [26]	United Fruit Co	Colon, R. P.
August 31	Inapaquina [26]	United Fruit Co	Colon, R. P.
September 1	Virginia	American Fruit & S. S. Co	San Blas, R. P.
September 1	Carare	Elders & Fyffes, Ltd	Avonmouth via wayports.
September 1	Cartago	United Fruit Co	New Orleans via Habana.

* DEPARTURES.

Date.	Vessel.	Line.	For—
August 26	Banan	United Fruit Co	Mobile, Ala.
August 26	Pastores	United Fruit Co	New York via Habana.
August 26	Danzig	Hamburg-American Line	Port Limon, Costa Rica.
August 27	Heredia	United Fruit Co	New Orleans via wayports.
August 28	Inapaquina [26]	United Fruit Co	Colon, R. P.
August 29	Ulua	United Fruit Co	Port Limon, Costa Rica.
August 29	Resolute [28]	D. L. Lynton	San Andres and Bluefields.
August 30	Anachucuna [26]	United Fruit Co	Colon, R. P.
August 30	Zacapa	United Fruit Co	New York via wayports.
August 30	Suriname	United Fruit Co	Port Limon via Bocas.
August 30	Coppename	United Fruit Co	New Orleans, La.
August 31	Virginia	American Fruit & S. S. Co	San Blas, R. P.
August 31	Teutonia	Hamburg-American Line	Port Limon and Puerto Barrios.
August 31	Anachucuna [26]	United Fruit Co	Colon, R. P.
August 31	Inapaquina [26]	United Fruit Co	Colon, R. P.
September 1	Virginia	American Fruit & S. S. Co	New Orleans, La.
September 1	Carare	Elders & Fyffes, Ltd	Avonmouth via Kingston.

[26] Motor boat. [27] Cruiser. [28] Schooner. * Other than ships passing through the Canal.

(Continued on page 64, column 2.)

Tanker Traffic Through The Panama Canal in August, 1928.

During the month of August, 1928, 95 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 520,764, on which tolls of $459,139.45 were collected. Cargo amounted to 495,713 tons. In point of net tonnage, tanker traffic for the past month showed a decrease of 22.2 per cent under the same traffic for the corresponding month a year ago, while cargo tonnage decreased 16.9 per cent under the cargo tonnage of August, 1927.

Tank ships comprised 18 per cent of the total commercial transits through the Canal during the month; made up 21.3 per cent of the total Panama Canal net tonnage; were the source of 20.8 per cent of the tolls collected; and carried 20.4 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of August, 1928, segregated by direction of transit and nationality of vessels, are shown in the following tabulation, with comparative totals for the two preceding months and for August, 1927:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
Belgian	1	4,976	$3,582.72	
British	9	47,001	35,196.56	7,289
Danish	1	5,623	4,048.56	
Danzig	1	6,310	4,543.20	
German	1	4,574	3,293.28	
Norwegian	2	9,501	6,840.72	
Swedish	1	4,497	3,237.84	
United States	30	169,607	124,470.27	14,413
Totals, August, 1928	46	252,089	185,213.15	21,702
Totals, July, 1928	49	264,688	195,784.18	18,521
Totals, June, 1928	51	270,917	207,154.95	53,676
Totals, August, 1927	62	353,368	256,276.41	7,638
Pacific to Atlantic.				
British	19	102,084	105,926.30	175,992
Danzig	2	12,465	13,130.00	23,090
French	1	4,635	5,030.00	7,860
Norwegian	2	7,948	8,737.50	16,179
United States	25	141,543	141,102.50	250,890
Totals, August, 1928	49	268,675	273,926.30	474,011
Totals, July, 1928	46	241,854	246,324.35	443,962
Totals, June, 1928	39	211,872	215,261.95	382,036
Totals, August, 1927	54	315,850	314,781.25	589,231

Of the tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for August, 1927:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
August, 1928	34	187,964	$135,334.08	
July, 1928	33	176,648	129,046.42	5,831
June, 1928	37	202,294	147,178.32	4,641
August, 1927	52	297,107	214,209.09	7,638
From Los Angeles.				
August, 1928	32	170,030	173,221.25	301,968
July, 1928	39	209,472	212,735.30	384,358
June, 1928	27	141,569	144,231.95	261,233
August, 1927	43	254,004	251,755.00	469,890

Executive Order.

The area of land hereinafter described, to be known as Bruja Point Military Reservation, situated in the Canal Zone, is hereby set apart and assigned to the uses and purposes of a military reservation under the jurisdiction of the Secretary of War; but said area shall be subject to the civil control and jurisdiction of the Governor of The Panama Canal, in conformity with the Panama Canal Act.

The boundaries of said reservation are described as follows:

Beginning at a point where the meridian 79° 36′ intersects the mean low water line at Venado Beach and following along a course of due north along the meridian 79° 36′ for a distance of 8,400 feet more or less to a concrete monument marked A, whose geodetic coordinates are 8° 55′ north and 79° 36′ west; thence along a course of due east for a distance of 8,708 feet to a concrete monument marked B; thence along a course S. 45° 00′ E. for a distance of 2,710 feet to a concrete monument marked C, which is a point on the western boundary of tract No. 1 of the Palo Seco Leper Colony Reservation; thence along the western boundary of tract No. 1 on a course of S. 13° 30′ W. for a distance of 1,412 feet to a concrete monument marked D, which is the southwest corner of tract No. 1 of the Palo Seco Leper Colony Reservation; thence along the southern boundary of tract No. 1 following a course of S. 76° 30′ E. for a distance of 1,500 feet more or less to its intersection with the mean low water line near Batele Point; thence along the mean low water line in a southerly and westerly direction to the point of beginning. The area of the reservation, as described, is 1,804 acres, plus or minus. All bearings refer to the true north and coordinates to the Panama Colon datum.

The above area is shown on Map of Bruja Point Military Reservation, U. S. Engineer Office, Balboa Heights, C. Z., dated February 18, 1928, revised March 12 and May 24, 1928. File No. 2778.

CALVIN COOLIDGE

THE WHITE HOUSE,
August 11, 1928.

[No. 4947]

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending September 1, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Danzig	Hamburg-American Line	August 26	August 26	78	(2)
Ammon	Hamburg-American Line	August 26	August 26	48	48
Hessen	Hamburg-American Line	August 26	August 26	138	(2)
Pastores	United Fruit Co	August 26	August 26	8	84
Ucayali	Peruvian Line	August 26	August 27	(1)	116
Santa Luisa	Grace Line	August 27	August 27	(1)	280
Benjamin Franklin	Fred Olsen & Co	August 27	August 28	(1)	97
Havana Maru	Osaka Shosen Kaisha	August 27	August 28	656	(2)
Ulua	United Fruit Co	August 27	August 29	758	20
Venezuela	Panama Mail S. S. Co	August 27	August 29	431	68
Takaoka Maru	Nippon Yusen Kaisha	August 28	August 28	204	(2)
Teno	Chilean Line	August 28	August 29	(1)	113
Jamaica	Pacific Steam Navigation Co		August 29		841
Resolute	R. Feuillebois	August 29	August 29	(1)	32
Rialto	Nav. Libera-Triestina Line	August 29	August 30	208	49
Cristobal	Panama Railroad S. S. Line	August 29		5,624	
Zacapa	United Fruit Co	August 29	August 30	517	580
Suriname	United Fruit Co	August 29	August 30	719	84
Cauca	National Navigation Co	August 29	August 31	143	336
Coppename	United Fruit Co	August 30	August 30	82	37
Murla	North German Lloyd	August 30	August 30	197	(2)
Rapot	Roland Line	August 30	August 31	34	200
Teutonia	Hamburg-American Line	August 30	August 31	320	196
Virginia	American Fruit & S. S. Corp	August 30	August 31	378	3
Santa Tecla	N. O. & S. A. S. S. Co	August 30	August 31	77	60
Limon	United Fruit Co	August 30	August 31	724	58
Bennekom	Royal Netherlands S. S. Co	August 31	September 1	350	392
Uribe	United Fruit Co	August 31		613	
Orduna	Pacific Steam Navigation Co	August 31	August 31	2	16
Lochgoil	Pacific Steam Navigation Co	August 31	September 1	155	39
Losada	Pacific Steam Navigation Co	August 31	September 1	(1)	144
Virginia	American Fruit & S. S. Corp	September 1	September 1	(1)	314
Haarlem	Royal Netherlands S. S. Co	September 1	September 1	2	45
Zenon	French Line	September 1	September 1	29	17
Cartago	United Fruit Co	September 1		437	
Heredia	United Fruit Co		August 27		42

(1) No cargo discharged. (2) No cargo laded.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by the Canal at $2.20 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessels furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 13 years of operation.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 61.

PORT OF BALBOA.

* ARRIVALS.

Date.	Vessel.	Line.	From—
August 27	Carabobo	Colombian Government	Buenaventura, Colombia.
August 31	Craftsman [29]	R. J. McArdle Contracting Co.	Buenaventura, Colombia.
August 31	Chiman [30]	Isthmian Land & Fruit Co.	El Real, R. P.
August 31	Ginyo Maru	Nippon Yusen Kaisha	Hongkong, China.
August 31	A. B. de O'Barrio [31]	Pacific Fruit Co.	Bayano River, R. P.
August 31	Dos Hermanos [31]	A. Valdez	Bayano River, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
August 27	Chiman [30]	Isthmian Land & Fruit Co.	El Real, R. P.
August 27	Craftsman [29]	R. J. McArdle Contracting Co.	Buenaventura, Colombia.
August 31	Ginyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
August 31	Craftsman [29]	R. J. McArdle Contracting Co.	Buenaventura, Colombia.
August 31	A. B. de O'Barrio [31]	Pacific Fruit Co.	Bayano River, R. P.
August 31	Dos Hermanos [31]	A. Valdez	Bayano River, R. P.

[29] Tug. [30] Motor ship. [31] Motor schooner. * Other than ships passing through the Canal.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., September 12, 1928. No. 6.

Danish Scientific Ship "Dana" Transits Canal.

The steam yacht *Dana*, owned by the Ministry of Agriculture of the Danish Government, arrived at Cristobal on August 25, 1928, from Copenhagen, Denmark, on the first leg of a scientific expedition that will take about 2½ years to complete. The vessel transited the Canal on August 27, and, after taking on fuel and commissary supplies, sailed on September 10 for Tahiti.

The *Dana* left Denmark last June, and has been making studies of deep sea life en route to the Isthmus. These studies will be continued through the South Pacific, North Pacific, and the Indian Oceans, the return trip to Denmark to be made via the Suez Canal. The vessel is equipped with modern instruments for such research and with facilities for preserving the live specimens.

The *Dana* is 134 feet long, 23 feet beam, and of 354 registered gross tons. She carries a crew of 25 men.

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 5, 1928.*

No. 435.

The following is quoted from Hydrographic Office Notice to Mariners No. 34, dated August 25, 1928:

1. "*Nicaragua, East Coast, Puerto Cabezas (Bragman Bluff), Light Discontinued.*—In consequence of the establishment of the new group flashing white light, the old fixed white light at Puerto Cabezas has been discontinued.

"Approximate position—14° 01′ 32″ N., 83° 22′ 52″ W.

2. "*Colombia, West Coast, Buenaventura River Approach, Palmas Island Light—Information.*—The master of the Italian steamer *Carso* reported that on June 4, 1928, Palmas Island Light was showing a group of 2 flashes every 10 seconds, and not as stated in the Light List.

"The master also reported that the light showed red from 67° to 113°.

"This report was confirmed by the master of the American steamer *Santa Tecla* on June 30, 1928.

"Approximate position—3° 53′ 28″ N., 77° 22′ 12″ W.

3. "*West Indies, Virgin Islands, St. Thomas Harbor, Rupert Rock Light, New Structure.*—About September 10, 1928, Rupert Rock Light will be reexhibited, 16 feet above the water, from a gray post without other change.

"Approximate position—18° 19′ 45″ N., 64° 55′ 35″ W.

4. "*Porto Rico, South Coast, Port Arroyo, Shoal Located.*—A recent survey shows a depth of 17 feet at mean low water 0.85 mile 204° from Port Arroyo Range Front Light, in latitute 17° 57′ 05″ N., longitude 66° 04′ 12″ W."

H. BURGESS,
Acting Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 8, 1928.*

No. 438.

The following was received from the Lighthouse Subdivision, The Panama Canal:

PANAMA BAY—PACIFIC OCEAN.

"Commission Rock gas buoy established on September 4, 1928, in 36 feet of water, M. L. W. S., on the following bearings:

Taboga Light, 12° 00′ (N. 9/16 E. mag.).
Flamenco Light, 212° 00′ (SSW. 3/8 W. mag.).
Urava Island R. T., 337° 00′ (NNW. 1/2 W. mag.).
Color of aid—Red and black, horizontal stripes.
Color of light—Red.
Characteristic—Fashing thus: ½ second light, 1½ seconds dark, period of 2 seconds.
Focal plane—16 feet; visibility, 5 miles. F. KARIGER, *Pilot in Charge.*"

H. BURGESS,
Acting Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 8, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Ionic	9-1	15.45	2	6.15	2	12.56	2	14.24	British	Shaw, Savill & Albion	500.3	63.3	28.6	London, England	Wellington, N. Z.	General	6,455	12,872	9,577
Salvador	8-24	19.50	2	6.10	2	13.40	2	15.38	British	Pacific Steam Nav. Co	215.0	33.5	17.6	Cristobal, C. Z.	Champerico, Guat.	General	1,193	1,270	735
Turakina	9-2	00.20	2	7.10	2	14.32	2	23.35	British	N. Z. Shipping Co	460.0	62.5	26.0	Liverpool, England	Auckland, N. Z.	General	8,744	10,618	7,306
Victolite [1] [2]	2	4.50	2	7.15	2	14.38	2	18.23	British	Imperial Oil Co	510.0	68.2	23.0	Quebec, Canada	Talara, Peru	Ballast		11,575	7,945
Californian [2]	2	11.05	2	11.20	2	17.54	2	21.35	American	Amer.-Hawaiian Line	445.0	59.8	22.0	New York, N. Y.	Portland, Oreg.	General	4,135	8,567	6,020
Maple Branch	2	11.35	2	12.55	2	19.23	2	20.35	British	Nautilus S. S. Co	400.0	52.0	19.0	Liverpool, England	Valparaiso, Chile	General	2,217	5,618	4,116
Mundelta	2	12.15	2	12.55	2	20.18	2	21.28	American	Munson, McCor'k Line	370.0	53.2	22.0	Baltimore, Md.	Tacoma, Wash.	Steel, general	4,750	5,668	4,297
Kastalia	2	1.35	2	14.42	2	21.20	2	22.44	British	Donaldson Brothers	384.9	52.2	16.6	Glasgow-England	Vancouver, B. C.	General, bananas	1,114	5,530	3,917
N. T. Nielsen Alonzo [3]	2	14.40	2	14.50	2	22.55	3	18.14	Norwegian	Melsom and Melsom	481.0	57.2	32.5	Norfolk, Va.	Hobart, Tasmania	Ballast		10,388	7,609
Abron	2	15.22	2	15.40	3	10.33	3	12.00	American	Finkbine Guild Lum. Co.	381.0	52.2	24.3	New Orleans, La.	San Francisco, Cal	General	6,150	5,732	4,131
Annam [2]	2	15.55	3	6.09	3	12.46	4	19.25	Danish	East Asiatic Co	410.0	55.2	17.2	Newcastle-on-Tyne	Vancouver, B. C.	Coke, general	2,049	7,067	5,286
Rochester [1]	8-31	16.40	3	6.00	6	11.48			American	U. S. Navy	380.0	64.0	26.0	Cristobal, C. Z.	Balboa, C. Z				
Limon	9-3	6.00	3	6.20	3	13.32	3	14.35	American	United Fruit Co	330.6	44.0	20.6	Port Limon, C. R.	San Francisco, Cal.	Coffee, bananas	776	3,675	2,229
Mittelmeer [1] [2]	3	3.05	3	8.40	3	15.02	3	20.20	German	Atlantic Tank Rhederie	411.9	54.0	19.8	Liverpool, England	Talara, Peru	Ballast		6,605	4,340
Sylvan Arrow [1]	3	8.20	3	8.40	3	15.42	3	17.04	American	Standard Oil Co	467.6	62.7	20.0	Baltimore, Md	Los Angeles, Calif.	Ballast		9,698	6,862
Benedick [1] [2]	3	7.30	3	9.15	3	16.05	3	21.20	British	Anglo-Saxon Pet. Co	430.0	58.0	18.0	Greenock, England	Los Angeles, Calif	Ballast		7,285	4,856
Robin Hood	3	9.05	3	9.30	3	17.05	3	18.14	American	Seas Shipping Co	424.0	55.0	27.6	Baltimore, Md	Tacoma, Wash.	General	8,957	7,473	5,533
Hans Leonhardt [3]	3	2.10	3	10.58	3	18.05	3	19.35	German	Colombian Transp. Co	230.8	36.8	14.0	New York, N. Y.	Tumaco, Colombia	Cattle, general	194	1,568	909
Schuylkill [1] [2]	3	12.35	3	15.00	3	21.49	3	22.40	British	Anglo-American Oil Co.	476.0	63.8	19.0	Avonmouth, Eng	Los Angeles, Calif.	Ballast		9,197	6,390
K. Ktistakis	4	6.40	4	6.50	8	16.27	8	17.35	Greek	Alex. Cross & Sons	385.0	49.0	14.0	Oran, Algeria	Arica, Chile	Ballast		4,885	3,479
Alaska	3	16.30	4	9.35	4	16.10	4	17.25	French	French Line	425.0	54.8	18.1	Havre, France	Vancouver, B. C.	(5)	1,328	6,989	4,854
Leikanger	4	1.45	4	10.20	4	17.27	4	18.47	Norwegian	Westfal Larsen & Co	375.0	52.3	18.3	Buenos Aires, Arg.	Vancouver, B. C.	General	2,891	5,953	4,354
Steelore	4	13.35	4	13.45	4	20.35	4	21.40	American	Ore S. S. Corp	550.2	72.2	20.0	New York, N. Y.	Cruz Grande, Chile	Ballast		15,551	4,297
Edenton	4	16.40	4	16.55	5	10.32	5	11.55	American	Roosevelt S. S. Co., S. B.	409.6	54.2	22.0	New York, N. Y.	Saigon, China	General	6,017	7,478	5,906
K. R. Kingsbury [2]	4	18.48	4	20.00	5	11.20	5	13.10	American	Standard Oil Co	440.0	58.0	21.0	Baltimore, Md	Los Angeles, Calif.	Ballast		9,033	5,938
Taibu Maru	4	18.15	5	6.10	5	13.06	5	14.25	Japanese	Kokusai Kisen Kaisha	407.3	50.10	26.0	Baltimore, Md	Osaka, Japan	Steel, phosphates	6,604	6,170	4,537
Oilshipper [1]	4	19.25	5	6.10	5	13.22	5	14.40	British	British Tanker Co	410.0	53.5	20.0	Falmouth, England	Los Angeles, Calif.	Ballast		5,942	4,037
J. R. Gordon	5	00.40	5	7.15	5	14.57	5	17.15	American	Crown Willamette Paper Co.	409.8	54.2	19.3	Galveston, Texas	Portland, Oreg.	Sulphur	3,500	6,581	4,784
Japanese Prince [2]	5	4.20	5	7.10	5	14.13	5	15.25	British	Prince Line, Ltd.	441.6	60.0	26.0	New York, N. Y.	Manila, P. I.	General	6,913	9,240	6,152
Normanstar	5	9.40	5	9.50	5	16.14	5	17.15	British	Blue Star Line	415.6	56.0	20.0	Tyne, England	Los Angeles, Calif.	Ballast		7,517	5,458
Joseph Seep [1]	5	10.25	5	10.40	5	17.33	5	18.30	American	Standard Shipping Co.	429.0	59.0	19.0	Wilmington, N. C	Los Angeles, Calif.	Ballast		7,825	5,616
Horace Luckenbach	5	10.05	5	11.15	5	17.58	5	19.09	American	Luckenbach Line	445.0	58.0	22.6	Boston, Mass	Seattle, Wash.	General	5,571	8,699	6,363
Santore	5	9.45	5	12.50	5	19.37	5	21.08	American	Ore S. S. Corp	449.0	57.0	19.6	Baltimore, Md	Cruz Grande, Chile	Ballast		7,808	5,139

[1] Tanker. [2] Motor ship. [3] Whaler. [4] Cruiser. [5] Iron, steel, and general.

Bolton Castle	5	10.12	5	13.50	5	21.40	5	23.06	British	Barber S. S. Line	424.0	53.0	37.3	New York, N. Y.	Chinwangtao,China	General	7,289	6,537	4,837
Los Angeles [2]	4	2.00	5	14.23	5	20.34	5	21.45	German	Hamburg-AmericanLine	432.5	59.2	24.3	Hamburg,Germany	Vancouver, B. C.	General, bananas	7,415	8,454	6,344
Volumnia	5	4.00	5	15.05	6	9.41	6	11.10	British	DuPont & Co	423.0	56.0	25.0	New York, N. Y.	San Antonio, Chile.	Steel rails, etc.	7,560	6,229	4,524
Navy launch			6		6	20.20			American	U. S. Navy				Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Oroya	5	16.52	6	6.10	6	13.41	6	15.00	British	Pacific Steam Nav. Co.	525.3	62.8	24.6	Liverpool, England	Talcahuano, Chile	General	3,473	13,137	9,067
Cedarbank [2]	5	23.00	6	6.20	6	14.15	6	18.00	British	Andrew Weir & Co	420.0	53.9	23.6	Philadelphia, Pa.	Taku Bar, China	General	7,207	7,099	5,016
Cape of Good Hope [2]	5	23.55	6	7.30	6	15.06	6	19.00	British	Lyle Shipping Co	405.0	52.0	18.0	Rotterdam,Holland	Vancouver, B. C.	Ballast		5,851	4,284
Santa Maria [2]	6	4.00	6	8.30	6	15.56	6	23.48	American	Grace Line	466.0	64.0	24.5	New York, N. Y.	Talcahuano, Chile.	General	2,715	10,350	6,382
London Importer [2]	5	11.45	6	11.06	6	17.48	6	19.00	British	Furness Withy & Co	450.0	57.0	18.3	Glasgow-England	Vancouver, B. C.	General, bananas	924	8,405	5,855
Solana [1]	6	13.45	6	13.55	6	20.20	6	21.40	American	Tidewater Oil Co	419.5	56.5	23.0	New York, N. Y.	San Francisco, Cal.	Ballast		7,060	5,025
F. H. Hillman [1]	6	21.18	7	6.15	7	12.54	7	13.55	American	Standard Oil Co	500.0	68.2	19.10	London, England	Los Angeles, Calif.	Ballast		11,225	7,913
Oregonian	7	00.55	7	6.20	7	13.12	7	14.30	American	Amer.-Hawaiian Line	404.0	54.0	19.0	Boston, Mass.	Seattle, Wash.	General	3,679	6,754	4,800
President Polk	7	5.40	7	7.25	7	14.06	7	21.42	American	Dollar Line	502.1	62.2	26.0	New York, N. Y.	Shanghai, China	General	3,226	12,660	9,254
Selma City	7	7.10	7	7.55	7	14.50	7	19.01	American	Isthmian S. S. Lines	424.0	56.0	26.6	Baltimore, Md.	San Francisco, Cal.	Steel, general	8,142	7,611	5,450
Willanglo	7	3.20	7	9.00	7	16.17	7	17.35	American	Williams S. S. Line	409.0	54.0	18.6	Baltimore, Md.	Seattle, Wash.	Sand, general	4,300	6,510	4,827
City of Roubaix	7	4.45	7	10.05	7	17.17	7	18.30	British	Ellerman Lines, Ltd.	456.0	48.0	25.2	New York, N. Y.	Adelaide, Australia.	General	5,424	9,037	6,517
Kinderdijk	4	18.35	7	11.50	7	18.30	7	19.40	Dutch	Holland-American Line	469.4	50.4	19.6	Rotterdam,Holland	Vancouver, B. C.	General, bananas	2,809	8,515	6,060
Baralt	4	16.30	8	6.10	8	14.01	8	15.15	Dutch	Royal Neth. S. S. Co.	200.0	33.0	12.3	Cristobal, C. Z.	Guayaquil,Ecuador	General	205	1,183	742
Suscolanco	7	20.15	8	6.15	8	13.55	8	15.15	American	Transmarine Lines	324.0	46.0	23.0	New York, N. Y.	Seattle, Wash.	General	3,782	3,984	2,612
Agia Marina	7	14.28	8	6.30	8	14.59	8	16.05	Greek	Rethymnes & Kuluk's.	370.0	51.0	13.0	Teneriffe, Can'y Is.	Taltal, Chile	Ballast		5,498	4,137
Onondaga	7	21.40	8	7.30	8	15.07	8	16.20	American	Ford Motor Co	251.0	43.6	20.6	Savannah, Ga.	Vancouver, B. C.	General	2,746	2,656	1,621
BohemianClub [1]	8	2.35	8	7.40	8	15.51	8	17.40	American	Atlantic Refining Co	425.0	57.2	22.0	Fall River, Mass.	Los Angeles, Calif.	Ballast		7,204	4,769
Eclipse	8	6.15	8	8.20	8	16.11	8	17.32	American	Amer.-PioneerLine,S.B	440.0	56.0	28.0	New York, N. Y.	Manila, P. I.	Case oil, general	8,492	8,293	6,078
Steel Navigator	8	9.00	8	9.40	8	17.21	10	18.35	American	Isthmian S. S. Lines	424.0	56.0	26.0	Philadelphia, Pa.	Batavia, Java	Steel, general	8,347	7,611	5,454
Herman Falk [1 2]	8	9.35	8	10.00	8	17.53	8	19.00	American	Oil Transport Co	431.0	59.2	20.0	Baltimore, Md.	Talara, Peru	Ballast		7,862	5,049
Itauri	7	17.55	8	13.12	8	19.55	8	22.30	German	Hamburg-AmericanLine	438.0	55.0	22.5	Hamburg,Germany	Valparaiso, Chile.	General	4,032	7,004	5,017

[1] Tanker.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Pacific Spruce	1	22.50	2	6.55	2	14.48	2	14.48	American	Dimon S. S. Corp.	410.5	54.0	24.6	Gray's Hbr., Wash.	New York, N. Y.	Lumber	8,200	6,624	4,757
Baralt	2	8.20	2	9.35	2	16.30	8	6.10	Dutch	Royal Neth. S. S. Co.	210.0	33.0	13.0	Guayaquil,Ecuador	Cristobal, C. Z.	(?)	367	1,183	742
Aladdin [1]	2	21.10	3	6.05	3	13.40	3	13.40	American	Standard Transp. Co.	435.6	56.2	26.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline	8,736	7,408	5,112
Sunewco	2	22.30	3	6.59	3	14.40	3	14.40	American	Transmarine Lines	324.0	46.2	24.0	Dollarton, B. C.	Port Newark, N. J.	Lumber	4,000	3,984	2,612
Aconcagua	3	4.00	3	8.15	3	15.25	3	20.34	Chilean	South American Line	422.8	56.2	26.6	Valparaiso, Chile	New York, N. Y.	General	5,251	7,764	4,705
Lebore	4	2.30	4	6.11	4	15.00	4	15.00	American	Ore S. S. Corp	549.6	72.2	34.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	20,000	14,325	4,635
Heluan	4	3.24	4	6.40	4	15.10	4	19.25	German	Hamburg-AmericanLine	440.0	53.0	25.9	Valparaiso, Chile	Hamburg,Germany	Nitrates, general	7,418	7,621	5,313
Cisneros [2]	8–25	17.00	4	8.02	4	16 15	4	19.30	Colombian	Colombian Government	171.6	21.0	12.0	Buenaventura, Col.	Pto. Colombia, Col.	Ballast			
Westfalen [2]	9–3	23.15	4	7.43	4	16.22			German	Colombian Transp. Co	169.0	31.0	11.0	Buenaventura, Col.	Cristobal, C. Z.	Coffee, general	171	804	503
K. I. Luckenbach	4	7.45	4	8.41	4	17.25	4	17.25	American	Luckenbach Line	446.0	56.1	28.0	Portland, Oreg.	Boston, Mass.	General	7,725	8,552	6,236
Iowa	4	8.00	4	9.01	4	18.15	5	11.15	French	French Line	448.9	53.3	26.0	Valparaiso, Chile	Le Havre, France.	General	8,131	7,469	5,020
Hougomont [6]	4	4.15	4	9 59	4	21.35	5	7.50	Finnish	G. Eriksen	292.4	43.2	22.0	Santa Rosa, Peru.	Jacksonville, Fla.	Guano	4,100	2,416	2,188
Minnesotan	4	8.20	4	10.16	4	18.20	4	18.20	American	Amer.-Hawaiian Line	407.7	53.7	26.6	Portland, Oreg.	Boston, Mass.	General	7,045	7,150	5,024
Taranaki [2]	4	20.40	5	6.30	5	13.25	5	13.25	British	Shaw, Savill & Albion	483.0	64.2	26.4	Dunedin, N. Z.	Glasgow-England	Frozen, general	5,777	11,706	8,320
San Francisco Maru	4	22.00	5	7.16	5	15.20	5	18.35	Japanese	Kokusai Kisen Kaisha	385.0	51.0	28.0	Portland, Oreg.	Europe	Wheat	7,856	6,245	4,704
Bradfyne	5	6 15	5	7.45	5	18.10	5	18.10	British	Leeds Shipping Co	400.0	54.3	25.6	Vancouver, B. C.	New York, N. Y.	Lumber	7,500	6,961	5,265
Winterhude [6]	5	3.00	5	10.28	5	20.02	6	8.25	Finnish	G. Eriksen	285.5	40.5	22 3	Santa Rosa, Peru.	Antwerp, Belgium	Guano	3,200		
El Lobo [7]	5	11.20	5	12.00	5	19.50	5	22.45	British	C. T. Bowring & Co	385.2	51.0	24.0	La Libertad,Ecuad.	Philadelphia, Pa.	Crude oil	6,215	4,851	3,326

[2] Tanker. [6] Sailing ship. [7] Coffee, cocoa, and ivory nuts.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Francis E. Powell [1]	5	18.40	6	5.58	6	14.15	6	14.15	American	Atlantic Refining Co.	431.0	59.2	26.6	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,521	7,680	5,101
Sun [1 8]	5	19.45	6	6.42	6	14.55	6	14.55	American	Sun Oil Co.	480.6	66.0	29.0	Los Angeles, Calif.	Chester, Pa.	Gasoline	13,289	9,620	6,424
Pacific Trader [8]	5	14.10	6	7.30	6	15.33	6	15.33	British	Furness, Withy & Co.	420.0	58.0	27.0	Vancouver, B. C.	Glasgow-England	General	8,063	7,905	5,869
Jefferson Myers	5	20.00	6	8.10	6	16.45	6	16.45	American	State S. S. Co.	440.0	56.0	29.0	Portland, Oreg.	Norfolk, Pa.	Lumber, general.	9,650	8,300	6,020
Algonquin [1]	6	6.40	6	8.58	6	17.15	6	17.15	American	Standard Transp. Co.	435.0	56.0	26.6	Los Angeles, Calif.	New York, N. Y.	Gas oil	9,499	7,602	5,337
Halo [1]	6	8.05	6	9.36	6	18.20	6	20.50	American	Cities Service Corp.	435.0	56.0	29.0	Los Angeles, Calif.	Philadelphia, Pa.	Crude oil	11,500	7,434	5,145
Cali	6	8.00	6	10.14	6	18.35	7	13.22	German	North German Lloyd	228.0	32.9	11.6	Guayaquil, Ecuador	Pto. Colombia, Col.	Machinery, gen.	251	1,105	698
Cerigo	6	8.40	6	10.21	6	18.40	10	10.08	German	Hamburg-American Line	227.2	34.4	13.0	Guayaquil, Ecuador	Cristobal, C. Z.	[11]	730	1,572	1,011
Ansaldo San Giorgio II [8]	6	2.30	6	11.12	6	19.08	7	6.50	Italian	Soc. Nav. Di Nav.	391.7	51.5	24.0	N. Westmins'r, B.C.	Liverpool, England	Lumber	6,000	5,591	3,975
Larry Doheny [1]	6	11.20	6	12.25	6	20.28	6	20.28	American	Richfield Oil Co.	430.0	59.0	28.8	Los Angeles, Calif.	Fall River, Mass	Gasoline	10,354	7,494	5,181
San Carlos [1 9]	8–28	15.02	6	13.30	6	21.38	6	21.38	British	Lago Shipping Co.	305.0	50.0	10.0	Balboa, C. Z.	Maracaibo, Venez.	Ballast			
K. Ktistakis [10]			6		8	18.27			Greek	G. Ktistakis.	385.0	49.0	14.0	Paraiso, C. Z.	Gatun Lake, C. Z.	Ballast			
W. S. Rheem [1]	9–6	15.25	7	6.00	7	15.00	7	19.15	American	Standard Oil Co. of Cal.	500.0	68.2	28.6	Los Angeles, Calif.	London, England	Gasoline	13,800	11,224	7,895
Broad Arrow [1]	7	4.00	7	6.55	7	15.50	7	15.50	American	Standard Transp. Co.	468.0	62.6	26.8	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,333	9,700	6,842
City of San Francisco [8]	6	14.10	7	7.14	7	15.21			Panaman	Panama Mail S. S. Co.	296.0	46.0	16.3	San Francisco, Cal.	Cristobal, C. Z.	[13]	1,022	3,848	2,606
San Mateo	7	00.22	7	7.05	7	15.22	8	11.15	American	United Fruit Co.	315.0	44.2	19.3	San Francisco, Cal.	Port Limon, C. R.	Case oil, general.	429	3,496	2,141
Virginian	7	3.00	7	7.47	7	16.30	7	16.30	American	Amer.-Hawaiian Line	491.5	58.2	29.0	Seattle, Wash.	Boston, Mass.	Lumber, general.	8,000	10,491	7,601
Floreana [8]	7	21.10	7	8.01	7	17.15			Colombian	Colombian Transp. Co.	150.0	27.2	6.6	Pto. Armuelles, R.P.	Cristobal, C. Z.	Ballast		410	307
Mincola	7	4.23	7	8.27	7	17.25	7	20.15	American	N. O. & S. A. S. S. Co.	298.6	40.0	21.1	Iquique, Chile.	New Orleans, La.	General	3,541	2,835	1,805
Japan Arrow [1]	7	6.20	7	8.42	7	17.45	7	17.45	American	Standard Transp. Co.	468.3	62.7	28.0	Los Angeles, Calif.	Providence, R. I.	[14]	12,315	10,084	7,426
Rotorua	7	1.00	7	13.25	7	20.00	7	20.00	British	N. Z. Shipping Co.	530.0	61.4	24.9	Wellington, N. Z.	London, England	Frozen, general.	4,506	12,846	9,439
San Tiburcio [1]	7	12.50	7	14.10	7	22.30	8	2.20	British	Eagle Oil Transport Co.	413.0	53.4	24.0	Los Angeles, Calif.	Land's End, Eng [12]	Gasoline	7,428	5,997	4,069
Sutherland	7	13.55	7	14.40	7	22.55	7	22.55	American	Charles Nelson & Co.	380.0	53.2	23.0	Everett, Wash.	Baltimore, Md.	Lumber, general.	6,040	5,654	4,123
Steel Trader	7	14.40	7	15.19	8	00.19	8	4.33	American	Isthmian S. S. Lines	424.2	56.0	26.0	Noumea, N. Calid.	Baltimore, Md.	[15]	8,558	7,611	5,450
Martha [8]	5	18.13	7	15.56	8	12.30	8	17.50	Norwegian	Chr. Hannevig	181.0	30.0		Pedregal, R. P.	Cartagena, Colom.	Ballast		780	504
Byron D. Benson [1]	7	16.45	8	6.04	8	13.45	8	13.45	American	Tidewater Oil Co.	465.4	60.2	26.5	Los Angeles, Calif.	New York, N. Y.	Naptha tops	10,877	8,546	5,860
Fernbank [8]	7	18.50	8	6.30	8	14.25	8	14.25	Norwegian	Fearnley & Eger.	382.7	53.4	25.8	Kohsichang, Siam	Habana, Cuba	Rice in bags	7,350	6,112	4,265
Watertown [1]	8	5.50	8	7.06	8	15.15	8	15.15	American	Cities Service Co.	416.9	56.2	27.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,700	6,717	4,778
Firpark	7	21.50	8	7.30	8	17.00	8	17.50	British	J. & J. Denholm, Ltd.	280.1	41.9	16.0	Yavaros, Mexico	New York, N. Y.	Chick peas	2,000	2,212	1,379
Modavia [8]	7	20.45	8	8.19	8	16.05	8	16.05	British	Donaldson Line.	385.2	53.4	26.8	Victoria, B. C.	Glasgow-England	Wheat, general.	5,831	6,719	4,979
La Paz [8]	8	1.00	8	8.55	8	17.40	8	21.55	British	Pacific Steam Nav. Co.	406.3	54.2	29.0	Corral, Chile	London, England	[16]	8,196	7,216	4,912
Vanduara [1]	8	8.25	8	9.07	8	17.45	8	17.45	British	Gow, Harrison & Co.	375.1	51.7	24.0	Los Angeles, Calif.	Curacao, D. W. I.	Gasoline	5,932	5,037	3,537
King Neptune [8]	8	9.10	8	9.48	8	18.30	8	20.55	British	Balfour, Guthrie & Co.	400.7	54.8	23.8	Portland, Oreg.	Dublin, Ireland.	Wheat	7,687	6,279	4,336
Queenswood	8	9.45	8	10.33	8	19.10	8	21.10	British	Can.-Amer. S. S. Co.	370.5	56.3	21.8	Puget Sound, Wash.	Grimsby, England	Lumber, wheat.	6,750	4,973	3,581

[1] Tanker. [8] Motor ship. [9] August 28 for dry docking only. [10] Departed from Gatun Lake to Arica, Chile. [11] Coffee, hides, and general. [12] For orders. [13] Hides, coffee, and general.
[14] Kerosene distillate. [15] Chrome ore, sugar, and canned pineapples. [16] Nitrates, copper, and general.

Tilthorn	8	10.55	8	11.44	8	20.15	8	20.15	Norwegian	O. G. & F. H. Olsen	420.2	53.9	29.0	Tocopilla, Chile	Sorel, Canada	Nitrates	10,450	6,591	4,730
Munbeaver	8	11.55	8	12.50	8	21.27	8	21.27	American	Munson S. S. Line	384.8	51.2	25.0	San Francisco, Cal.	Boston, Mass.	Lumber, general	6,285	5,571	4,033
Chickasaw City	8	14.15	8	15.12	8	22.25	8	22.25	American	Isthmian S. S. Lines	395.5	55.0	25.0	Englewood, B. C.	New York, N. Y.	Lumber	6,927	7,322	5,237

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
September 2...	War Nizam	British Admiralty	Curacao, D. W. I.
September 2...	Ulua	United Fruit Co	Port Limon, Costa Rica.
September 2...	Mayari	United Fruit Co	New York, N. Y.
September 2...	Macabi	United Fruit Co	New York, N. Y.
September 3...	Toloa	United Fruit Co	New York via Habana.
September 4...	Linda S. [17]	Surgeon Brothers	Colon, R. P.
September 5...	Saramacca	United Fruit Co	New Orleans, La.
September 5...	Venezuela	Royal Netherlands S. S. Co	Amsterdam via wayports.
September 5...	Santa Marta	United Fruit Co	New York via Kingston.
September 5...	William M. [18]	G. I. Bryan	Colon, R. P.
September 5...	Inapaquina [19]	United Fruit Co	Colon, R. P.
September 6...	Suriname	United Fruit Co	Bocas del Toro, R. P.
September 6...	Favorita	American Fruit & S. S. Corp.	New Orleans, La.
September 6...	Macoris	French Line	Havre via wayports.
September 6...	Anachucuna [19]	United Fruit Co	Colon, R. P.
September 7...	Venezuela	Royal Netherlands S. S. Co	Port Limon, C. R.
September 7...	Eupatoria	Hamburg-American Line	Vera Cruz, Mexico.
September 7...	Inapaquina	United Fruit Co	Colon, R. P.
September 8...	Favorita	American Fruit & S. S. Corp.	San Blas, R. P.
September 8...	Parismina	United Fruit Co	New Orleans via Habana.
September 8...	Maravi	United Fruit Co	Puerto Colombia.
...	...	...	...
...	...	...	...

* DEPARTURES.

Date.	Vessel.	Line.	For—
September 2...	Ulua	United Fruit Co	New York via Habana.
September 2...	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
September 2...	Mayari	United Fruit Co	New York via Kingston.
September 3...	Cartago	United Fruit Co	New Orleans via wayports.
September 4...	Linda S. [17]	Surgeon Brothers	Bluefields, Nicaragua.
September 5...	William M. [18]	G. I. Bryan	Bluefields, Nicaragua.
September 5...	Inapaquina [19]	United Fruit Co	Colon, R. P.
September 5...	Macabi	United Fruit Co	Cartagena and Puerto Colombia.
September 5...	Venezuela	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
September 5...	Toloa	United Fruit Co	Port Limon, Costa Rica.
September 6...	Saramacca	United Fruit Co	Bocas del Toro and Puerto Colombia.
September 6...	Santa Marta	United Fruit Co	New York via wayports.
September 6...	Suriname	United Fruit Co	New Orleans, La.
September 6...	Anachucuna [19]	United Fruit Co	Colon, R. P.
September 6...	Favorita	American Fruit & S. S. Corp.	San Blas, R. P.
September 7...	War Nizam	British Admiralty	Curacao, D. W. I.
September 7...	Eupatoria	Hamburg-American Line	Hamburg via wayports.
September 7...	Inapaquina	United Fruit Co	Colon, R. P.
September 8...	Favorita	American Fruit & S. S. Corp.	New Orleans, La.
September 8...	Macoris	French Line	Havre via wayports.
September 8...	Venezuela	Royal Netherlands S. S. Co	Amsterdam via wayports.

[17] Motor schooner. [18] Schooner. [19] Motor boat.

PORT OF BALBOA.

September 2...	Rakuyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
September 2...	San Luis [20]	Chiriqui Land Co	Pto. Armuelles, R. P.
September 2...	Cricamola [20]	Chiriqui Land Co	Pto. Armuelles, R. P.
September 4...	Craftsman [21]	M. J. Dady Engr. & Const. Co.	Buenaventura, Colombia.
September 5...	Cathwood	Union Oil Co. of Calif	Los Angeles, Calif.
September 6...	A. B. de O'Barrio [20]	Pacific Fruit Co	Bayano River, R. P.
September 6...	Dos Hermanos [20]	A. Valdez	Bayano River, R. P.
September 6...	Chiman [22]	Isthmian Land & Fruit Co	El Real, R. P.
September 8...	San Luis [20]	Chiriqui Land Co	Pto. Armuelles, R. P.

September 2...	Rakuyo Maru	Nippon Yusen Kaisha	Hongkong, China.
September 3...	Chiman [22]	Isthmian Land & Fruit Co	El Real, R. P.
September 3...	San Luis [20]	Chiriqui Land Co	Pto. Armuelles, R. P.
September 6...	A. B. de O'Barrio [20]	Pacific Fruit Co	Bayano River, R. P.
September 6...	Dos Hermanos [20]	A. Valdez	Bayano River, R. P.
September 7...	Cathwood	Union Oil Co. of Calif	Los Angeles, Calif.
September 8...	San Luis [20]	Chiriqui Land Co	Pto. Armuelles, R. P.
...	...	...	...
...	...	...	...

[20] Motor schooner. [21] Tug. [22] Motor ship.

* Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in August, 1928, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of August, 1928, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for August, 1927, and 1926. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes, and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States	84	442,373	344,038	552,975	343,360	$382,916.82	219,421
East coast of United States to west coast So. Amer.							
British	7	23,954	18,927	32,152	19,395	21,069.87	19,990
Chilean	2	9,377	6,899	14,620	7,952	8,623.75	4,706
German	1	2,817	1,545	2,593	1,526	1,931.25	224
Norwegian	1	4,730	4,105	6,583	4,119	3,405.60	.....
Swedish	2	8,917	7,486	30,676	8,762	6,420.24	.....
United States	14	57,279	47,714	81,143	48,508	46,074.61	18,130
Totals	27	107,074	86,676	167,767	90,262	87,525.32	43,050
Europe to west coast of South America:							
British	6	40,630	31,995	53,407	32,938	38,104.48	16,781
Colombian	1	29	23	117	39	20.88	.....
Danish	2	4,787	3,150	5,104	3,169	3,857.00	5,939
Dutch	2	11,413	8,307	13,850	10,157	10,383.75	7,901
French	2	8,742	6,947	11,175	6,820	8,683.75	2,794
German	3	14,433	10,203	16,285	9,973	12,753.75	13,764
Italian	2	12,744	7,911	16,683	9,878	9,888.75	2,579
Spanish	1	3,729	2,960	5,087	3,000	3,700.00	388
Yugoslavian	1	3,288	2,355	3,724	2,324	2,943.75	4,864
Totals	20	99,795	73,851	125,432	78,298	90,336.11	55,010
Europe to west coast of United States:							
British	4	16,996	14,473	22,489	13,442	12,915.88	6,475
Danish	1	5,625	4,670	7,691	4,710	4,048.56	.....
Danzig	1	6,310	5,346	8,940	5,050	4,543.20	.....
German	1	4,574	3,832	6,358	3,637	3,293.28	.....
Norwegian	6	29,840	23,293	38,093	22,945	23,754.47	16,045
Swedish	4	20,226	13,476	22,562	16,884	14,848.07	9,244
United States	1	7,895	6,052	9,838	6,019	5,684.40	.....
Totals	18	91,464	71,142	115,971	72,687	69,087.86	31,764
Europe to west coast Canada:							
British	11	57,819	42,174	67,887	42,069	47,386.19	13,181
Danish	2	10,655	8,442	13,297	8,490	10,552.50	7,410
French	2	10,339	8,346	13,636	8,381	10,432.50	7,841
German	2	12,312	9,342	12,957	7,854	11,677.50	9,430
Italian	1	6,025	5,056	7,098	4,498	6,320.00	3,423
Totals	18	97,150	73,360	114,875	71,292	86,368.69	41,285
East coast of United States to Far East:							
British	2	9,989	5,723	9,387	5,692	7,153.75	14,500
Danish	2	5,722	4,115	6,878	4,142	5,143.75	9,655
Japanese	6	31,987	24,710	38,432	24,201	30,887.50	41,980
Norwegian	1	4,222	2,487	4,302	2,450	3,108.75	7,100
Swedish	1	5,213	4,170	6,865	4,972	5,212.50	5,487
United States	3	17,795	11,803	19,168	11,701	14,753.75	27,777
Totals	15	74,928	53,008	85,032	53,158	66,260.00	106,499
Cristobal, C. Z., to west coast of South America:							
Colombian	4	1,081	1,026	1,722	1,027	1,263.70	1,990
Dutch	1	742	294	780	323	367.50	129
German	6	8,963	6,310	11,038	6,259	7,854.85	3,959
Totals	11	10,786	7,630	13,540	7,609	9,486.05	6,078

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
East coast of United States to Australasia:							
British	7	41,370	29,614	47,081	29,638	$37,017.50	35,030
Norwegian	1	4,343	2,500	4,319	2,441	3,125.00	6,600
United States	1	5,823	5,395	6,870	5,259	6,743.75	4,195
Totals	9	51,536	37,509	58,270	37,338	46,886.25	45,825
Europe to Australasia:							
British	7	55,439	38,788	63,055	39,105	48,485.00	42,654
French	1	5,364	4,287	7,133	4,335	5,358.75	2,677
Totals	8	60,803	43,075	70,188	43,440	53,843.75	45,331
Around the world:							
British	1	5,861	3,129	5,299	3,091	3,911.25	4,998
Norwegian	2	7,603	5,671	9,461	5,773	7,088.75	8,698
United States	4	27,063	20,275	33,089	19,853	25,343.75	19,937
Totals	7	40,527	29,075	47,849	28,717	36,343.75	33,633
East coast of United States to west coast of Canada:							
British	3	13,453	9,370	15,066	9,282	9,686.16	.....
United States	3	13,185	9,678	15,320	9,500	12,097.50	16,380
Totals	6	26,638	19,048	30,386	18,782	21,783.66	16,380
East coast of Central America to west coast of United States:							
Norwegian	1	2,080	1,305	2,166	1,298	1,631.25	1,992
United States	5	14,331	12,680	20,596	12,601	14,138.68	2,898
Totals	6	16,411	13,985	22,762	13,899	15,769.93	4,890
East coast of United States to Philippine Islands:							
British	2	12,182	6,728	12,028	6,744	8,410.00	11,298
Norwegian	1	4,358	2,415	4,111	2,356	3,018.75	7,303
United States	1	6,063	4,838	7,597	4,754	6,047.50	8,315
Totals	4	22,603	13,981	23,736	13,854	17,476.25	26,916
Foreign ships in ballast, U. S. intercoastal:							
Belgian	1	4,976	4,568	7,138	3,988	3,582.72	.....
British	1	5,095	4,242	7,045	4,371	3,668.40	.....
Norwegian	1	3,876	3,438	5,923	3,381	2,790.72	.....
Totals	3	13,947	12,248	20,106	11,740	10,041.84	.....
East coast of United States to west coast of Central America:							
British	1	1,379	1,209	1,955	1,191	1,511.25	.....
German	1	1,469	1,155	1,930	1,128	1,057.68	.....
United States	1	244	227	545	236	175.68	.....
Totals	3	3,092	2,591	4,430	2,555	2,744.61	.....
East coast of Canada to west coast of South America:							
British	3	20,339	17,557	29,877	18,104	14,644.08	.....
East coast of Canada to Australasia:							
British	3	12,858	9,935	16,405	10,039	12,418.75	9,563
South American intercoastal:							
German	1	698	618	1,023	616	772.50	206
Norwegian	1	504	423	732	391	528.75	150
Peruvian	1	2,405	989	3,305	1,514	1,236.25	275
Totals	3	3,607	2,030	5,060	2,521	2,537.50	631
Cristobal, C. Z., to west coast of Central America:							
British	3	2,063	1,900	3,436	1,906	2,353.90	3,085
East coast of United States to Hawaiian Islands:							
United States	2	7,194	5,007	8,366	5,014	6,258.75	10,421

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
East coast of Central America to west coast of South America:							
United States	2	432	533	743	538	$364.50	.....
Cristobal, C. Z., to west coast of United States:							
Panaman	1	2,603	1,383	2,461	1,384	1,728.75	2,928
United States	1	1,549	1,167	1,974	1,161	1,458.75	2,109
Totals	2	4,152	2,550	4,435	2,545	3,187.50	5,037
East coast of South America to west coast of United States:							
Norwegian	1	4,375	2,431	4,000	2,485	3,038.75	3,049
United States	1	5,014	3,508	5,550	3,533	4,385.00	2,154
Totals	2	9,389	5,939	9,550	6,018	7,423.75	5,203
Canadian intercoastal:							
British	1	4,186	3,322	5,439	3,336	4,152.50	2,511
East coast of Canada to Far East:							
British	1	5,145	3,623	5,714	3,629	4,528.75	6,680
Europe to west coast of Central America:							
German	1	3,751	2,480	4,381	2,515	3,100.00	4,817
Europe to Hawaiian Islands:							
British	1	3,754	2,954	4,863	2,951	3,692.50	5,491
Europe to Far East:							
Norwegian	1	4,114	3,228	5,247	3,267	2,962.08	.....
West Indies to west coast of United States:							
United States	1	1,443	1,270	2,264	1,301	1,038.96	.....
East coast of Central America to Australasia:							
British	1	4,042	2,603	4,221	2,633	3,253.75	5,658
East coast of Central America to Far East:							
Danish	1	4,467	2,690	4,473	2,737	3,362.50	7,503
East coast of South America to Far East:							
Japanese	1	5,821	4,170	7,267	4,387	5,212.50	2,906
Africa to west coast of Canada:							
British	1	4,810	4,134	6,695	4,122	3,463.20	.....
Africa to Australasia:							
British	1	4,098	3,199	5,225	3,168	3,998.75	6,920
Gatun Lake, C. Z., to Balboa, C. Z.:							
United States	[1]	67	67	(1)	(1)	80.40	.....
Grand totals, August, 1928	271	1,264,859	960,408	1,586,980	967,722	1,084,905.51	752,508
Grand totals, August, 1927	298	1,387,511	1,079,237	1,751,014	1,073,081	1,167,476.40	669,187
Grand totals, August, 1926	239	1,157,409	902,488	1,484,333	909,143	999,201.30	689,547

[1] Barge having no registered tonnage.

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	83	441,417	337,086	543,327	340,339	$421,357.50	603,099
West coast of United States to Europe:							
British	20	91,163	67,485	111,427	67,527	84,356.25	156,224
Danish	1	5,341	4,257	6,650	4,247	5,321.25	8,841
Danzig	1	6,127	5,268	8,939	5,007	6,585.00	11,545
French	1	4,635	4,024	6,477	3,488	5,030.00	7,860
German	1	6,732	4,909	8,109	4,883	6,136.25	8,978
Norwegian	3	13,393	10,021	16,954	10,003	12,526.25	24,009
Swedish	1	5,661	3,406	5,642	4,320	4,257.50	7,665
Totals	28	133,052	99,370	164,198	99,475	124,212.50	225,122

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West coast of South America to Europe:							
British	8	44,761	34,872	56,633	35,176	$43,590.00	54,890
Danzig	1	6,338	5,236	8,956	5,041	6,545.00	11,545
Dutch	2	12,750	7,380	12,437	7,737	9,225.00	18,355
French	2	9,461	7,105	11,373	7,087	8,881.25	16,084
German	7	35,108	25,803	42,149	25,802	32,253.75	56,591
Italian	1	4,344	3,768	6,275	3,955	4,710.00	8,450
Norwegian	4	12,472	9,248	15,139	9,181	11,560.00	20,559
Spanish	1	3,844	3,017	5,205	3,226	3,771.25	1,818
Yugoslavian	2	8,341	7,303	11,548	7,303	9,128.75	16,878
Totals	28	137,419	103,732	169,715	104,508	129,665.00	205,170
West coast of South America to east coast United States:							
British	6	28,588	23,459	40,275	24,157	29,323.75	38,384
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	2,250
Finnish	1	1,687	1,673	1,816	1,565	2,024.40	2,950
German	1	2,817	1,545	2,593	1,526	1,931.25	294
Norwegian	2	7,673	5,719	9,323	5,711	7,148.75	14,600
Panaman	1	4,897	4,014	6,386	4,067	5,017.50	5,475
Peruvian	1	1,529	1,483	2,155	1,169	1,834.80	2,112
Swedish	2	5,934	5,050	16,939	5,431	6,312.50	21,152
United States	11	51,698	42,763	73,765	43,754	53,334.05	110,139
Totals	26	109,495	89,139	160,562	91,356	111,218.25	197,356
West coast of Canada to Europe:							
British	13	69,156	46,886	77,379	47,731	58,607.50	105,259
Dutch	3	20,673	15,186	24,364	15,108	18,982.50	28,624
German	2	12,143	7,578	12,806	7,821	9,472.50	14,506
Italian	1	6,497	4,963	8,124	5,128	6,203.75	9,233
Norwegian	2	11,767	9,784	15,606	9,818	12,230.00	17,798
Swedish	1	4,033	2,316	3,877	2,912	2,895.00	5,558
United States	1	4,964	3,663	5,856	3,663	4,578.75	8,400
Totals	23	129,233	90,376	148,012	92,181	112,970.00	189,378
West coast of South America to Cristobal, C. Z.:							
Colombian	5	1,744	1,643	2,826	1,654	2,044.35	1,930
Dutch	1	742	294	780	323	367.50	410
German	4	3,296	2,151	3,922	2,034	2,656.10	1,035
Norwegian	1	606	485	855	482	606.25	683
Peruvian	1	2,405	989	3,305	1,514	1,236.25	2,143
Totals	12	8,793	5,562	11,688	6,007	6,910.45	6,201
West coast of United States to east coast of Central America:							
United States	7	21,519	18,922	30,515	18,795	23,599.45	16,203
West coast of Canada to east coast of United States:							
British	4	18,415	12,877	20,675	12,947	16,096.25	29,692
United States	2	7,062	5,068	8,025	4,991	6,335.00	9,718
Totals	6	25,477	17,945	28,700	17,938	22,431.25	39,410
Philippine Islands to east coast of United States:							
Japanese	4	20,970	17,684	26,933	17,108	22,105.00	27,925
United States	1	5,956	5,510	7,700	5,599	6,887.50	9,846
Totals	5	26,926	23,194	34,633	22,707	28,992.50	37,771
West coast of South America to east coast of Canada:							
British	4	25,827	22,039	37,181	22,352	27,548.75	52,205
Australasia to Europe:							
British	4	28,482	22,430	32,908	20,554	28,037.50	26,268
Australasia to east coast of Canada:							
British	4	18,318	14,239	23,479	14,383	17,798.75	12,932
Far East to east coast of United States:							
Japanese	1	4,769	3,511	5,652	3,451	4,388.75	4,357
United States	2	11,156	8,320	12,004	7,389	10,400.00	12,302
Totals	3	15,925	11,831	17,656	10,840	14,788.75	16,659

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West coast of Central America to Cristobal, C. Z.:							
British	3	2,063	1,900	3,436	1,906	$2,353.90	1,122
Canadian intercoastal:							
British	2	7,168	5,897	9,104	5,750	7,371.25	10,490
West coast of Central America to east coast of United States:							
Danish	1	1,469	1,188	1,970	1,206	1,485.00	2,484
German	1	1,167	816	1,432	811	1,020.00	2,103
Totals	2	2,636	2,004	3,402	2,017	2,505.00	4,587
South American intercoastal:							
German	1	698	618	1,023	616	772.50	330
Norwegian	1	504	423	732	391	362.88	.....
Totals	2	1,202	1,041	1,755	1,007	1,135.38	330
Balboa, C. Z. to Cristobal, C. Z.:							
United States	2	895	851	1,839	894	1,053.75	.....
West coast of United States to West Indies:							
British	1	4,062	3,579	5,880	3,531	4,473.75	8,206
West coast of United States to Cristobal, C. Z.:							
Panaman	1	2,603	1,383	3,644	2,594	1,728.75	1,056
West coast of Canada to West Indies:							
Danish	1	3,643	1,919	3,300	1,998	2,398.75	5,109
West coast of Canada to Africa:							
British	1	4,335	3,144	5,224	3,136	3,930.00	6,428
Central American intercoastal:							
German	1	3,832	3,124	5,096	3,155	2,759.04	.....
West coast of Central America to Europe:							
German	1	3,272	2,801	4,165	2,547	2,355.84	.....
West coast of South America to West Indies:							
British	1	8,665	7,497	11,877	7,353	6,238.80	.....
Hawaiian Islands to east coast of United States:							
United States	1	1,740	1,542	2,647	1,542	1,927.50	1,845
Balboa, C. Z. to east coast of Central America:							
United States	1	111	191	401	196	143.25	.....
Balboa, C. Z. to West Indies:							
British	1	152	102	525	197	109.44	.....
Far East to Europe:							
Japanese	1	4,125	3,319	5,396	3,231	4,148.75	5,881
Grand totals, August, 1928	255	1,172,387	896,159	1,470,265	902,489	1,114,163.80	1,672,828
Grand totals, August, 1927	245	1,126,103	878,468	1,437,303	879,491	1,106,564.15	1,760,760
Grand totals, August, 1926	225	1,073,496	849,614	1,381,787	851,379	1,055,840.61	1,632,150

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending September 8, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Laded.
				Tons.	*Tons.*
Takaoka Maru	Nippon Yusen Kaisha	August 27	August 27	285	.....
Venezuela	Panama Mail S. S. Co	August 29	August 29	46	1
California	Panama-Pacific Line	August 31	August 31	.....	170
Santa Tecla	Grace Line	August 31	August 31	60	4
Ginyo Maru	Nippon Yusen Kaisha	August 31	August 31	159	.....
Ecuador	Panama Mail S. S. Co	September 1	September 9	680	.....
Losada	Pacific Steam Navigation Co	September 1	September 1	.....	50
Rakuyo Maru	Nippon Yusen Kaisha	September 2	September 2	.....	45
Annam	East Asiatic Co	September 3	September 3	660	.....
Cathwood	Union Oil Co	September 6	September 6	10,336	.....
City of San Francisco	Panama Mail S. S. Co	September 6	September 7	28	229
President Polk	Dollar Line	September 7	September 7	.....	9
San Luis	United Fruit Co	September 8	September 8	.....	37

Traffic by Nationality for August, 1928.

The following tabulation shows the commercial traffic through the Canal during the month of August, 1928, classified according to nationality of vessel by direction of transit, and the combined traffic in both directions, with corresponding totals for August, 1927, and 1926:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	4,976	4,568	7,138	3,988	$3,582.72	.....
British	67	345,462	255,599	418,726	256,846	291,825.91	204,815
Chilean	2	9,377	6,899	14,620	7,952	8,623.75	4,706
Colombian	5	1,110	1,049	1,839	1,066	1,284.58	1,990
Danish	8	31,254	23,067	37,443	23,248	26,964.31	30,507
Danzig	1	6,310	5,346	8,940	5,050	4,543.20	.....
Dutch	3	12,155	8,601	14,630	10,480	10,751.25	8,030
French	5	24,445	19,580	31,944	19,536	24,475.00	13,312
German	17	49,715	36,103	57,588	34,124	43,213.31	32,730
Italian	3	18,769	12,967	23,781	14,376	16,208.75	6,002
Japanese	7	37,808	28,880	45,699	28,588	36,100.00	44,886
Norwegian	16	69,347	50,678	83,914	50,290	53,680.37	50,607
Panaman	1	2,603	1,383	2,461	1,384	1,728.75	2,928
Peruvian	1	2,405	989	3,305	1,514	1,236.25	275
Spanish	1	3,729	2,960	5,087	3,000	3,700.00	388
Swedish	7	34,356	25,132	60,103	30,618	26,480.81	14,731
United States	[1]125	[1]607,750	[1]474,252	766,038	473,338	527,562.80	331,737
Yugoslavian	1	3,288	2,355	3,724	2,324	2,943.75	4,864
Totals, August, 1928	271	1,264,859	960,408	1,586,980	967,722	1,084,905.51	752,508
Totals, August, 1927	298	1,387,511	1,079,237	1,751,014	1,073,081	1,167,476.40	669,187
Totals, August, 1926	239	1,157,409	902,488	1,484,333	909,143	999,201.30	689,547

[1] Includes barge of 67 net tons, Panama Canal and United States measurements; no registered tonnage.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
British	72	351,155	266,406	436,003	266,700	$329,835.89	502,100
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	2,250
Colombian	5	1,744	1,643	2,826	1,654	2,044.35	1,930
Danish	3	10,453	7,364	11,920	7,451	9,205.00	16,434
Danzig	2	12,465	10,504	17,895	10,048	13,130.00	23,090
Dutch	6	34,165	22,860	37,581	23,168	28,575.00	47,389
Finnish	1	1,687	1,673	1,816	1,565	2,024.40	2,950
French	3	14,096	11,129	17,850	10,575	13,911.25	23,944
German	18	68,367	48,727	80,272	48,579	58,584.73	83,507
Italian	2	10,841	8,731	14,399	9,083	10,913.75	17,683
Japanese	6	29,864	24,514	37,981	23,790	30,642.50	38,163
Norwegian	14	47,113	36,298	59,632	36,202	45,206.63	77,979
Panaman	2	7,500	5,397	10,030	6,661	6,746.25	6,531
Peruvian	2	3,934	2,472	5,460	2,683	3,071.05	4,255
Spanish	1	3,844	3,017	5,205	3,226	3,771.25	1,818
Swedish	4	15,628	10,772	26,458	12,663	13,465.00	34,375
United States	111	546,518	423,916	686,079	427,162	529,616.75	771,552
Yugoslavian	2	8,341	7,303	11,548	7,303	9,128.75	16,878
Totals, August, 1928	255	1,172,387	896,159	1,470,265	902,489	1,114,163.80	1,672,828
Totals, August, 1927	245	1,126,103	878,468	1,437,303	879,491	1,106,564.15	1,760,760
Totals, August, 1926	225	1,073,496	849,614	1,381,787	851,379	1,055,840.61	1,632,150

(Continued on next page.)

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

Traffic by Nationality.—Continued.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	4,976	4,568	7,138	3,988	$3,582.72	.....
British	139	696,617	522,005	854,729	523,546	621,661.80	706,915
Chilean	3	14,049	10,332	21,930	11,928	12,915.00	6,956
Colombian	10	2,854	2,692	4,665	2,720	3,328.93	3,920
Danish	11	41,707	30,431	49,363	30,699	36,169.31	46,941
Danzig	3	18,775	15,850	26,835	15,098	17,673.20	23,090
Dutch	9	46,320	31,461	52,211	33,648	39,326.25	55,419
Finnish	1	1,687	1,673	1,816	1,565	2,024.40	2,950
French	8	38,541	30,709	49,794	30,111	38,386.25	37,256
German	35	118,082	84,830	137,860	82,703	101,798.04	116,237
Italian	5	29,610	21,698	38,180	23,459	27,122.50	23,685
Japanese	13	67,672	53,394	83,680	52,378	66,742.50	83,049
Norwegian	30	116,460	86,976	143,546	86,492	98,887.00	128,586
Panaman	3	10,103	6,780	12,491	8,045	8,475.00	9,459
Peruvian	3	6,339	3,461	8,765	4,197	4,307.30	4,530
Spanish	2	7,573	5,977	10,292	6,226	7,471.25	2,206
Swedish	11	49,984	35,904	86,561	43,281	39,945.81	49,106
United States	[1]236	1,154,268[1]	[1]898,168	1,452,117	900,500	1,057,179.55	1,103,289
Yugoslavian	3	11,629	9,658	15,272	9,627	12,072.50	21,742
Totals, August, 1928	526	2,437,246	1,856,567	3,057,245	1,870,211	2,199,069.31	2,425,336
Totals, August, 1927	543	2,513,614	1,957,705	3,188,317	1,952,572	2,274,040.55	2,429,947
Totals, August, 1926	464	2,230,905	1,752,102	2,866,120	1,760,522	2,055,041.91	2,321,697

[1] Includes barge of 67 net tons, Panama Canal and United States measurements; no registered tonnage.

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 10, 1928.*

No. 439.

The following is quoted from Hydrographic Office Notice to Mariners No. 35, dated September 1:

"Caribbean Sea, Swan Island, Meteorological and weather information by radio.—The following notice has been received from the United States Weather Bureau, Department of Agriculture:

"The United States Weather Bureau has made arrangements for the reopening of the meteorological station at Swan Island in the western Caribbean Sea (approximately latitude 17° 25′ N., longitude 83° 56′ W.), in cooperation with the Tropical Radio Telegraph Company, for the months of August, September, and October, 1928.

"Meteorological observations from Swan Island are of great value during the hurricane season, not only to shipping in the Gulf of Mexico and the Caribbean but to the U. S. Weather Bureau in the issuing of its warnings and advice of storms and hurricanes. The observations are taken at 7 a. m. and 7 p. m. daily, 75th meridian time. They are transmitted by radio to the Weather Bureau at Washington on wave lengths of 600 and 630 meters at 7.15 a. m. and 7.15 p. m., 75th meridian time. There is no objection to ships copying these reports for their individual use and information."

H. BURGESS,
Acting Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 10, 1928.*

No. 440.

The following was received by the Hydrographic Office through the Captain of the Port, Cristobal:

"M. S. Westfalen, September 1, 7 p. m.—Passed Buenaventura River Buoy No. 1, latitude 3° 47′ north, longitude 77° 19′ west, and found that this buoy was not burning. (Signed) P. G. HOTZEL, Master."

H. BURGESS,
Acting Governor.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., September 19, 1928. No. 7.

Canal Traffic During First Fifteen Days of September.

During the first 15 days of September, 232 commercial vessels and 5 small launches transited the Canal. Tolls on the commercial vessels aggregated $1,016,395.25, and on the launches, $41.34, or a total tolls collection of $1,016,436.59.

The daily average of transits of commercial vessels was 15.46, and the daily average tolls collection, $67,759.68. The average amount of tolls paid by each of the commercial transits was $4,381.01, as compared with $4,309.98 for the first 15 days of August. Traffic for the first 15 days of September was lower by 11 transits and $30,929.14 than the traffic for the first 15 days of August, 1928, and lower by 31 transits and $95,298.57 than the traffic for the first 15 days of September, 1927.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 8½ months of the current calendar year, with the daily averages of transits and tolls:

Month.	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,370.57	17.48	71,271.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
August	526	2,199,069.31	16.97	70,937.72
September (first 15 days)	232	1,016,395.25	15.46	67,759.68
Totals	4,416	18,337,214.93	17.05	70,800.06

"City of New York" Transits Canal.

The first unit of the Byrd Antarctic Expedition, the *City of New York*, arrived at Cristobal on September 15, 1928, on the first leg of its voyage from New York to Dunedin, New Zealand, where it will be met by Commander Byrd and other units of the expedition. The vessel transited the Canal on the 17th and set sail the following day for New Zealand. Engine trouble developed, however, in the vicinity of Bona Island and the vessel returned to Balboa for repairs. After necessary repairs are made it will resume its voyage.

The *City of New York*, which is the flag ship of Commander Byrd's expedition, is a 3-masted bark with an auxiliary coal-burning engine. It is built entirely of wood and so constructed that the vessel will lift when in an ice pack. The vessel is about 43 years old and prior to purchase by the Byrd expedition was engaged in the whaling trade under Norwegian registry. It is 147.9 feet long by 31 feet beam, and of 503 gross tons.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 15, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Stella	8-25	15.00	9	6.05	9	15.36	9	16.55	Norwegian.	Panama Mail S. S. Co.	195.1	32.9	16.8	Cristobal, C. Z	Champerico, Guat.	General	1,238	985	606
Cape Cornwall	9-9	7.58	9	8.10	9	15.13	9	16.55	British	Can.-Amer. S. S. Co.	405.0	53.0	22.0	Tyne, England	Seattle, Wash.	Coke, fire bricks.	4,161	5,741	4,088
Santa Cecelia	9	8.55	9	9.10	9	15.56	9	17.15	American	Argonaut S. S. Co.	404.3	53.9	27.0	New York, N. Y.	Seattle, Wash.	Steel, general.	7,778	6,745	4,562
Yorkmar	9	11.20	9	11.30	9	18.15	9	19.45	American	Calmar S. S. Co.	409.8	54.2	23.6	Baltimore, Md.	Seattle, Wash.	Steel, general.	6,177	6,757	4,919
Knute Nelson [4]	8	13.40	9	11.50	9	19.05	10	16.25	Norwegian.	Peter Olsen	436.0	56.0	17.5	Oslo, Norway	Vancouver, B. C.	Cement	945	8,016	5,854
El Aleto [1 2]	9	13.45	9	14.04	9	20.52	9	22.25	British	Imperial Oil Co.	440.8	57.6	19.4	Halifax, N. S.	Talara, Peru	Ballast		7,555	5,049
Pacific Pine	9	19.45	9	20.15	10	9.10	10	10.31	American	Dimon S. S. Co.	410.5	54.3	22.0	New York, N. Y.	Seattle, Wash.	General	5,055	6,583	4,808
Glasgow Maru	10	3.40	10	6.12	10	14.11	10	15.35	Japanese.	Kokusai Kisen Kaisha.	385.0	51.0	25.0	Wilmington, Del.	Yokohama, Japan	General	7,491	6,213	4,665
San Mateo	10	5.45	10	6.35	10	14.10	10	15.35	American	United Fruit Co.	330.0	44.2	21.6	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee.	1,019	3,496	2,141
Crown City [2]	10	3.45	10	7.20	10	15.07	10	16.25	American	Roosevelt S.S. Co., S.B.	410.0	54.0	19.0	New York, N. Y.	Adelaide, Australia	General	3,000	6,736	4,881
C. O. Stillman [1 2]	10	6.50	10	7.45	10	14.54	10	16.25	British	International Pet. Co.	565.0	75.0	27.1	New York, N. Y.	Los Angeles, Calif.	Ballast		16,780	9,885
Cerigo	6	18.40	10	10.08	10	17.17	10	18.35	German.	Hamburg-American Line	227.0	34.0	14.0	Cristobal, C. Z	Buenaventura, Col.	General	371	1,572	1,011
Maine	10	12.40	10	12.45	10	19.30	10	21.15	American.	Isthmian S. S. Lines.	406.0	54.0	27.0	Baltimore, Md.	Vancouver, B. C.	Steel, general.	6,981	6,936	5,024
Padilla	9	22.30	10	13.35	10	20.20	10	21.50	Colombian.	Colombian S. S. Co.	247.2	43.5	16.3	Manaure, Col.	Buenaventura, Col.	Salt	1,250	2,206	1,506
Baron Inchcape	10	15.15	10	18.10	11	10.12	11	10.26	British	N. Z. Shipping Co.	425.0	56.0	21.0	Sydney, C. B.	Auckland, N. Z.	General	3,996	7,085	5,254
Witell	10	18.40	10	18.55	11	13.04	11	14.20	German	North German Lloyd.	449.0	58.2	25.6	Hamburg, Germany	San Francisco, Cal.	General	4,972	7,816	5,755
William H. Doheny [1]	11	1.15	11	6.20	11	14.01	11	15.10	American	Pan.-Amer. Pet. Co.	435.0	56.2	20.3	New York, N. Y.	Los Angeles, Calif.	Ballast		7,406	5,111
Fort Armstrong	11	7.00	11	7.40	11	15.12	11	16.45	American	Charles Nelson & Co.	324.0	46.0	19.11	Charleston, S. C.	Los Angeles, Calif.	General	4,791	3,984	2,628
Trafalgar	11	5.12	11	9.03	11	16.45	11	18.03	British	Isthmian S. S. Lines.	385.0	52.0	25.3	Philadelphia, Pa.	Valparaiso, Chile	(5)	5,969	5,174	3,657
King Howel	11	6.40	11	10.10	11	17.16	11	18.25	British	Dodd Thomson & Co.	400.0	52.0	25.0	Tampico, Mexico.	Adelaide, Australia	Asphalt	6,001	5,797	4,078
Guatemala	10	16.15	11	11.10	11	17.30	12	16.30	American	Grace Line	360.2	51.6	22.7	New York, N. Y.	San Francisco, Cal.	General	2,109	5,776	4,081
Buenaventura	10	9.50	11	11.52	11	19.23	11	20.50	American	Panama R.R.S.S. Line	251.0	43.0	19.9	New York, N. Y.	Guayaquil, Ecuador	General	1,372	2,873	1,776
Orangestad [1]	11	11.20	11	11.55	11	19.23			British	Lago Shipping Co.	305.7	50.2	9.0	Aruba, D. W. I.	Balboa, C. Z.	Ballast			
Texan	11	12.15	11	13.15	11	20.20	11	21.28	American	Amer.-Hawaiian Line	471.0	57.2	21.0	Boston, Mass.	Portland, Oreg.	General	3,786	9,154	6,966
Point Gorda	11	12.25	11	14.00	11	21.30	11	22.51	American	Gulf-Pacific Line	324.0	46.0	19.0	Port Arthur, Texas	Seattle, Wash.	Lub. oil, general.	3,163	3,984	2,643
Galveston [3]	11	9.20	11	14.20	11	21.40			American	U. S. Navy	292.0	44.0	19.0	High seas.	Balboa, C. Z				
Astral [2]	11	18.50	11	19.05	12	9.23	12	10.24	American	Standard Transp. Co.	439.5	58.0	21.3	New York, N. Y.	Los Angeles, Calif.	Ballast		8,913	6,210
Echo [4]	11	9.30	11	9.30	11	19.23			Panaman	H. A. Bodden				Colon, R. P.	Balboa, C. Z	Ballast		17	6
Uribe	8-31	18.00	12	6.00	12	16.05	13	11.57	Colombian.	Estrada G. Hermanos	227.4	31.7	12.2	Cristobal, C. Z	Buenaventura, Col.	General	894	1,154	663
El Panquiaco [6]	9-12	6.00	12	6.00	12	16.02	14	23.45	Panaman	Panaman Government.	125.0	23.0		Colon, R. P.	Panama, R. P.	Ballast		288	101
Grant [6]	12	6.30	12	6.40	12	15.28	13	12.30	American	U. S. Army	488.0	55.4	25.6	Brooklyn, N. Y.	San Francisco, Cal.	General	503		
Seekonk [2]	12	00.55	12	7.15	12	17.12	12	18.05	American	Quaker Line	390.0	52.0	22.0	Philadelphia, Pa.	Portland, Oreg.	General	4,444	6,162	4,417
Lucellum [1]	12	6.25	12	10.10	12	17.52	12	18.54	British	H. E. Moss	380.0	50.8	22.0	Falmouth, England	Los Angeles, Calif.	Ballast		5,300	3,706
East Lynn [2]	12	6.50	12	10.20	12	18.24	12	19.20	British	Reardon Smith	401.1	54.3	18.0	Newcastle-on-Tyne	Los Angeles, Calif.	Ballast		6,784	5,107
Canadian Conqueror	12	6.58	12	11.18	12	18.45	12	20.20	British	Can. Nat. Steamships	400.0	52.0	22.0	Montreal, Canada	Bluff, N. Z.	General	2,527	5,954	4,139
Nitokris	11	22.45	12	12.10	12	19.47	13	19.30	German	Hamburg-American Line	411.0	50.6	25.5	Hamburg, Germany	Valparaiso, Chile	General	1,973	6,652	4,704

[1] Tanker. [2] Motor ship. [3] Cruiser. [4] Motor sloop. [5] Steel, naphtha, and general. [6] Transport.

Andrea F. Luckenbach	12	14.00	12	14.05	12	20.44	12	22.15	American	Luckenbach Line	496.0	68.0	23.0	Boston, Mass	Seattle, Wash	General	6,350	11,487	8,762
Santos Maru [2]	12	13.55	13	6.05	13	13.03	13	14.30	Japanese	Osaka Shosen Kaisha	430.0	56.0	20.6	Buenos Aires, Arg	Kobe, Japan	General	3,285	7,875	5,821
Martha [2]	12	19.55	13	6.25	13	15.48	13	17.35	Norwegian	H. C. Stevenson	181.0	30.0	11.6	Covenas, Colombia	Buenaventura, Col.	Cattle	155	780	504
Svealand [2]	12	22.30	13	7.35	13	14.07	13	20.40	Swedish	Ore S. S. Corp	561.0	72.0	20.0	Baltimore, Md	Cruz Grande, Chile	Ballast		15,425	4,421
Eastern Knight	13	5.05	13	7.35	13	15.22	13	16.45	American	Arrow Line	427.0	55.7	21.5	Baltimore, Md	Portland, Oreg	General	4,876	7,643	5,657
Finn [2]	12	22.05	13	8.10	13	15.38	13	16.50	Swedish	Colombian MaritimeCo.	273.7	41.0	12.1	New York, N. Y.	Buenaventura, Col.	Cattle, general	374	2,472	1,513
Duchessa D'Aosta	13	7.20	13	12.35	13	19.40	13	21.15	Italian	Nav. Libera-Tricstina	446.0	57.0	16.6	Naples, Italy	Vancouver, B. C.	General	498	8,011	5,552
Florence Luckenbach	13	13.00	13	13.15	13	20.48	13	22.02	American	Luckenbach Line	401.0	52.0	23.0	New Orleans, La	San Francisco, Cal.	General	5,488	6,002	4,621
Canadolite [1] [2]	13	11.55	13	18.10	14	9.02	14	15.00	British	Imperial Oil Co	510.0	68.0	23.0	Montreal, Canada	Talara, Peru	Ballast		11,556	7,658
Mary Ellen O'Neil [1] [2]	13	18.30	13	19.25	14	9.51	14	10.59	American	Texas S. S. Co	509.0	70.0	21.6	Baltimore, Md	Los Angeles, Calif.	Ballast		12,425	8,338
Legazpi	12	14.55	14	6.00	14	14.27	14	15.35	Spanish	Comp. Trans. deBarcel'a	375.6	47.0	21.6	Barcelona, Spain	Valparaiso, Chile	General	379	4,506	2,827
Essequibo	13	14.15	14	6.05	14	15.00	14	16.00	British	Pacific Steam Nav. Co	450.0	57.8	24.10	New York, N. Y.	Valparaiso, Chile	General	3,194	9,158	6,176
Royalstar	14	6.35	14	7.10	14	15.37	14	17.10	British	Blue Star Line	462.0	58.0	20.6	Newport News, Va.	Vancouver, B. C.	Ballast		8,561	5,815
Honduras	13	1.55	14	11.57	14	19.04	14	20.15	French	French Line	387.0	51.7	23.2	Havre, France	Valparaiso, Chile	General	1,593	6,020	4,312
King James [2]	14	8.37	14	19.00	15	10.15	15	11.46	British	Dodd Thomson & Co.	400.0	59.0	14.7	Bordeaux, France	Los Angeles, Calif.	Ballast		7,369	5,592
Svaap [7]	8–12	14.10	14	18.45	15	11.44			American	Wm. A. Robinson	33.0	9.6		New York, N. Y.	Balboa, C. Z	Ballast		11	10
Narenta	9–14	10.18	15	6.10	15	13.31	15	14.25	British	Pacific Steam Nav. Co	463.0	58.0	22.8	Southampton, Eng.	Vancouver, B. C.	General, bananas	3,629	8,856	6,559
Snestad [2]	14	21.30	15	6.20	15	14.23	15	15.55	Norwegian	Fern Line	377.6	54.0	23.5	Houston, Texas	Kobe, Japan	Cotton, ore	6,905	6,079	4,534
Manchuria	15	5.45	15	7.10	15	14.02	15	23.10	American	Panama-Pacific Line	600.0	63.0	26.6	New York, N. Y.	San Francisco, Cal.	General	2,062	17,044	11,488
Sucarseco	15	7.00	15	7.25	15	15.15	15	16.40	American	Transmarine Lines	324.0	46.0	19.0	Newark, N. J.	San Francisco, Cal.	General	3,000	3,984	2,628
Jufuku Maru	15	10.20	15	10.30	15	17.51	15	21.00	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.0	Mobile, Ala	Osaka, Japan	Cotton, rails	6,764	5,919	4,435
Australia [3]	15	12.55	15	13.00	15	18.50	17	8.32	British	Australian Government	590.0	68.0	19.6	New York, N. Y.	Australia	Ballast			
Elaz [1] [2]	15	11.00	15	13.05	15	21.01	16	00.58	British	Anglo-Saxon Pet. Co	440.4	59.5	20.0	Grainton, Eng	Los Angeles, Calif.	Ballast			
Parthenia	14	22.05	15	15.15	15	21.20	15	22.38	British	Donaldson Line	399.0	51.9	18.4	Glasgow-England	Vancouver, B. C.	General, bananas	1,035	5,831	4,341
Port Albany	15	10.43	15	16.05	16	10.03	16	11.08	British	Com'lth & Dom. Line	426.3	54.1	25.8	Philadelphia, Pa.	Fremantle, Aust'lia	General, gasoline	3,973	7,506	5,261
Hawaiian	15	17.30	15	17.49	16	12.00	16	13.18	American	Amer.-Hawaiian Line	404.0	53.9	20.0	Boston, Mass	Seattle, Wash	General	3,882	6,766	4,767

[1] Tanker. [7] Yacht.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ecuador	31	23.05	9	6.25	9	13.05	9	13.50	American	Panama Mail S. S. Co.	380.6	48.7	21.6	San Francisco, Cal.	New York, N. Y.	General	1,935	5,920	4,178
Kilcredane	8	17.40	9	7.15	9	15.35	9	17.15	British	Andrew Weir & Co.	400.0	52.0	28.5	Makatea, So. Pac.	Helsinborg, Swed.	Phosphates	8,200	6,377	4,564
Santa Cruz	9	6.00	9	8.41	9	15.37	9	23.55	American	Grace Line	384.0	50.2	16.6	Tocopilla, Chile	New York, N. Y.	General	978	5,534	3,868
Canadian Leader	9	1.30	9	8.15	9	16.20	9	16.20	British	Can Nat. Steamships	400.3	52.4	17.6	Adelaide, Australia	Montreal, Canada	General	1,262	5,891	4,115
Feltre [2]	9	7.00	9	9.17	9	17.40	10	15.00	Italian	Nav. Libera-Tricstina	430.0	55.3	27.0	Vancouver, B. C.	Trieste, Italy	General	8,863	7,795	4,178
Franklin K. Lane [1]	9	7.10	9	9.42	9	17.45	9	17.45	American	Huasteca Petroleum Co.	435.0	56.2	26.0	Los Angeles, Calif.	New York, N. Y.	Motor gasoline	9,664	7,405	5,131
Edgar F. Luckenbach	9	14.35	9	15.27	9	22.40	9	22.40	American	Luckenbach Line	442.0	57.0	30.0	Portland, Oreg	New Orleans, La	General	8,866	8,568	6,648
Leon XIII	9	12.15	10	6.29	10	13.15	12	15.10	Spanish	Spanish Line	410.0	46.5	23.0	Valparaiso, Chile	Barcelona, Spain	General	1,749	5,521	3,729
Atlantic Sun [1]	10	4.00	10	6.38	10	14.50	10	14.50	American	Sun Oil Co	429.3	59.2	26.2	Los Angeles, Calif.	Miami, Florida	Gasoline	9,035	7,568	5,283
Dochet	10	3.30	10	7.51	10	17.05	10	17.05	American	Redwood Line, Inc.	386.8	53.2	24.6	San Francisco, Cal.	Mobile, Ala	Lumber, general	6,250	5,706	4,167
Santa Teresa	10	5.00	10	8.27	10	16.00	10	20.44	American	Grace Line	360.2	51.6	22.4	Talcahuano, Chile	New York, N. Y.	General	3,257	5,726	4,086
Indiana	10	10.00	10	11.10	10	18.50	11	11.45	French	French Line	417.8	53.9	25.0	Vancouver, B. C.	Havre, France	General	8,003	7,157	4,936
Flottbek	10	9.45	10	11.24	10	19.05	10	20.40	German	Knohr & Burchard	293.0	30.0	18.9	Guayamas, Mexico	Bilbao, Spain	Chick peas	2,733	2,221	1,469
Baarn	10	10.45	10	12.14	10	20.00	11	11.37	Dutch	Royal Neth. S. S. Co.	400.0	58.0	26.0	Valparaiso, Chile	Hamburg, Germany	General	8,240	7,819	6,101
Dean Emery [1]	10	17.50	11	6.10	11	14.10	11	14.10	American	Huasteca PetroleumCo.	429.3	59.2	26.4	Los Angeles, Calif.	Baltimore, Md	Gasoline	9,426	7,709	5,517

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Victolite [1 8]	10	18.00	11	7.10	11	15 35	11	15 35	British	Imperial Oil Co., Ltd.	510 0	68 2	29 8	Talara, Peru	Halifax, N. S.	Crude oil	16,400	11,575	8,078
Mantaro	11	5.30	11	7.48	11	17 25	15	6.55	Peruvian	Peruvian Line	367 3	46 0	28 0	Callao, Peru	Covenas, Colombia	[10]	2,261	4,838	2,959
Arana	11	7.30	11	8.18	11	17.25	11	22 35	British	Pacific Steam Nav. Co	303 4	43 0	14 4	Guayaquil, Ecuador	New York, N. Y.	[11]	216	2,851	1,776
Lillian Luckenbach	11	8.00	11	8.53	11	18.05	11	18 05	American	Luckenbach Line	448 0	60 2	29 6	Portland, Oreg	Boston, Mass	Lumber, general	8,400	9,294	6,865
Texmar	11	7.05	11	9.26	11	18 35	11	18 35	American	Calmar S. S. Corp	410 6	54 3	25 0	Gray's H'bor., Wash.	Philadelphia, Pa.	Lumber	7,647	6,567	4,905
Baron Saltour	11	11.05	11	12 20	11	19 55	11	21 05	British	H. Hogarth & Sons	342 1	48 6	20 0	Vancouver, B. C.	Three Rivers, Can	Lumber	3,052	3,929	2,817
American	11	12.15	11	12.56	11	20.05	11	20 05	American	Amer.-Hawaiian Line	401 6	53 9		Portland, Oreg	Boston, Mass	General	6,436	6,777	4,761
Bethore	12	1.00	12	6 17	12	17 25	12	19.32	American	Ore S. S. Corp	550 3	72 2	35 0	Cruz Grande, Chile	New York, N. Y.	Iron ore	19,800	15,476	4,354
Mongolia	11	12.55	12	6.31	12	13 52	12	14.20	American	Panama-Pacific Line	600 0	65 3	32 8	San Francisco, Cal.	New York, N. Y.	General	8,300	17,041	11,426
Mittelmeer [1 8]	11	22.20	12	7.19	12	14 15	12	15 15	German	Atlantic Tank Rhederei	431 0	55 0	25 2	Talara, Peru	Rio de Janciro	Gasoline	8,525	6,605	4,340
Willbabco	11	17.45	12	8.19	12	17 55	12	17.55	American	Williams S. S. Line	468 5	58 5	28 0	Seattle, Wash	New York, N. Y.	Lumber, general	11,503	8,460	6,162
Plum Branch	11	21.55	12	8.44	12	18 35	12	20.05	British	F. & W. Ritson	398 5	53 8	21 9	Coronel, Chile	Liverpool, England	Nitrates, copper	5,761	5,761	3,881
Guayaquil	11	22.45	12	9.00	12	19.10	13	12.10	American	Panama R. R. S. S. Line	251 0	43 6	15 0	Guayaquil, Ecuador	New York, N. Y.	General	929	2,874	1,944
Nebraska	12	10.40	12	11.11	12	19 48	13	2.35	American	Royal Mail S. P. Co	450 2	58 3	27 0	Vancouver, B. C.	Rotterdam, Holland	General	7,917	8,878	6,588
British Governor [1]	12	6.15	12	11.49	12	20.00	12	20.00	British	British Tankers, Ltd	440.2	57.0	26 9	Los Angeles, Calif	Land's End, Eng. [12]	Gasoline	9,298	7,554	5,079
Orleans	12	11.35	12	12.35	12	20 30	12	20 30	American	Quaker Line	395 5	55 0	27 0	Portland, Oreg	Philadelphia, Pa	[13]	8,027	7,330	5,233
Skipsea	12	11.45	12	12.42	12	22.05	12	23.40	British	Wm. Brown Atkinson Co	375 0	51 2	24 8	Portland, Oreg	Dublin, Ireland	Wheat	7,121	5,218	3,741
Kako Maru	12	7.00	12	14.53	12	22 55	13	12.43	Japanese	Nippon Yusen Kaisha	405 0	53 0	20 0	Manila, P. I.	Boston, Mass	General	4,724	7,025	5,055
Anthea	12	14.30	12	15.19	13	00 05	13	1.50	British	C. T. Bowring & Co.	385 4	53 2	24 6	Portland, Oreg	Gibraltar [12]	Wheat	7,374	5,788	3,852
Bessemer City	12	16.45	12	17.55	13	11.25	13	11.25	American	Isthmian S. S. Lines	441 6	56 2	25 0	Seattle, Wash	New York, N. Y.	General	7,016	7,611	5,450
Clio [1 8]	12	16.20	13	6.13	13	13 25	13	13 25	Danzig	Deutsch Amer. Pet. Co.	489 0	63 0	27 0	Los Angeles, Calif	Hamburg, Germany	Naphtha	11,665	9,248	6,310
Lio [8]	13	4.30	13	7.07	13	15.45	13	15 45	American	Standard Transp. Co.	431 0	59 0	27 0	San Francisco, Cal.	New York, N. Y.	Gasoline	9,365	7,846	5,112
Esparta	13	2.00	13	7.21	13	14.30	14	16.10	American	United Fruit Co	330.6	44 6	16 6	San Francisco, Cal.	Port Limon, C. R.	General	3371	3,673	2,367
Challenger [8]	13	1 50	13	8.11	13	16 50	14	00 55	American	Sun Shipbuilding Co	410 0	56 0	30 0	Seattle, Wash	Avonmouth, Eng	General	9,952	7,780	5,811
Utacarbon [1]	13	4.30	13	8 25	13	17 55	14	12.45	American	Union Oil Co. of Calif.	435 0	56 0	30 0	Los Angeles, Calif	Cristobal, C. Z	Fuel oil	9,869	7,481	5,209
Nordpol [8]	13	4.45	13	8.52	13	18 00	13	18 00	Danish	DuPont de Nemours	380.8	53 9	27 0	Iquique, Chile	Philadelphia, Pa.	Nitrates	8,700	6,242	4,519
Charles H. Cramp	13	7.00	13	9.21	13	18.15	13	18.15	American	Argonaut S. S. Co	404 6	53 9	28 0	Seattle, Wash	Baltimore, Md	Lumber, general	7,250	6,755	4,750
Pomona	13	6.30	13	10.34	13	19.05	13	23.30	American	Pomona S. S. Co	440 0	56 0	28 0	Everett, Wash	Baltimore, Md	Lumber	8,600	8,324	6,036
Missourian [8]	13	6.00	13	10.35	13	19 25	13	19.25	American	Amer.-Hawaiian Line	443 1	59 8	25 8	Tacoma, Wash	New York, N. Y.	General, lumber	7,776	8,567	6,020
Marore	14	00.22	14	6.10	14	16.40	14	16.40	American	Ore S. S. Corp	550 3	72.2	35 0	Cruz Grande, Chile	New York, N. Y.	Iron ore	20,000	15,551	4,297
Hadnot [7]	13	12.15	14	7.28	14	18 08	14	19 25	American	Cities Service Tr. Co.	416 9	56.2	27 0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	8,734	6,706	4,639
Sheafmount	14	7.35	14	8.24	14	17.05	14	18.35	British	Sheaf Steam Ship. Co	420 0	54.1	25.0	San Francisco, Cal.	Hull, England	Barley in bags	8,341	6,555	5,012
Adria [1 8]	14	9.30	14	10.38	14	17.35	14	17.35	German	Atlantic Tank Rhederei	412 6	55.1	25.3	San Francisco, Cal.	Land's End, Eng. [12]	Gasoline	8,557	6,579	4,574
Hans Leonhardt [8]	14	12.45	14	13.20	14	20.40	15	10.30	German	Colombian Maritime Co.	230 8	36.1	12 6	Buenaventura, Col.	New York, N. Y.	Coffee, hides	142½	1,568	909
Aleksandar I.	14	15.30	14	16.23	15	11.25	15	11.25	Yugoslav	Baburizza & Co.	423.5	56.0	26 0	Antofagasta, Chile	Azores [12]	Nitrates	9,300	6,561	4,701

[1] Tanker. [8] Motor ship. [9] Launch. [10] Copper bars and general. [11] Coffee, tagua, and wood. [12] For orders. [13] Lumber, sugar, and hay. [14] Coffee, hides, and ivory nuts.

Gustaf E. Reuter [18]	14	17.15	14	18.15	15	12.50	15	12.50	Swedish	Rederiaktiebolaget Reu.	407.0	55.0	27.6	Los Angeles, Calif.	Land's End, Eng. [12]	Gasoline	8,141	6,384	4,497
Echo [9]			14	7.26	16				Panaman	H. A. Bodden				Balboa, C. Z.	Cristobal, C. Z.	Ballast			
Sunoil [18]	15	5.15	15	6.10	15	14.23	15	17.35	American	Sun Oil Co	480.6	66.0	28.6	Los Angeles, Calif.	Chester, Pa.	Gasoline	13,753	9,610	6,396
Selvistan	15	00.40	15	7.25	15	16.55	15	16.55	British	Common Brothers	390.0	53.5	26.0	Astoria, Oregon	Dublin, Ireland	Wheat	7,919	5,619	4,127
Oropesa	15	2.00	15	8.15	15	16.38	15	22.00	British	Pacific Steam Nav. Co	530.0	66.3	29.0	Talcahuano, Chile	Liverpool, England	General	9,372	14,827	10,630
Cauca [8]	14	18.45	15	9.13	15	18.20			Colombian	National Navigation Co.	107.2	22.9	11.0	Buenaventura, Col.	Cristobal, C. Z.	(14)	188	238	162

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 9...	Toloa	United Fruit Co	Port Limon, Costa Rica.	September 9...	Toloa	United Fruit Co	New York via Habana.
September 10..	Dakotian	Leyland Line	Liverpool via wayports.	September 9...	Maravi	United Fruit Co	New York via Kingston.
September 10..	Calamares	United Fruit Co	New York via Habana.	September 10..	Parismina	United Fruit Co	New Orleans and wayports.
September 11..	Teutonia	Hamburg-American Line	Puerto Barrios, Colombia.	September 11..	Dakotian	Leyland Line	Cienfuegos via Port Limon.
September 12...	Coppename	United Fruit Co	New Orleans, La.	September 12..	Teutonia	Hamburg-American Line	Hamburg via wayports.
September 12...	Metapan	United Fruit Co	New York via Kingston.	September 12..	Calamares	United Fruit Co	Port Limon, Costa Rica.
September 13...	Virginia	American Fruit & S. S. Corp.	New Orleans, La.	September 13..	Anachucuna [15]	United Fruit Co	Colon, R. P.
September 13...	Ancon	Panama Railroad S. S. Line.	New York via Haiti.	September 13..	Ville Riestra [15]	United Fruit Co	Colon, R. P.
September 13..	Saramacca	United Fruit Co	Bocas del Toro, R. P.	September 13..	Metapan	United Fruit Co	New York via wayports.
September 13...	Anachucuna [15]	United Fruit Co	Colon, R. P.	September 13..	Coppename	United Fruit Co	Port Limon via Bocas.
September 13...	Ville Riestra [15]	Costa Rican Government	Colon, R. P.	September 13..	Saramacca	United Fruit Co	New Orleans, La.
September 14..	Commodore Rollins	United Fruit Co	Puerto Colombia.	September 13..	Virginia	American Fruit & S. S. Corp	San Blas, R. P.
September 14..	Inapaquina [15]	United Fruit Co	Colon, R. P.	September 14..	Inapaquina [15]	United Fruit Co	Colon, R. P.
September 15..	Virginia	American Fruit & S. S. Corp.	San Blas, R. P.	September 15..	Cavina	Elders & Fyffes, Ltd	Avonmouth via Kingston.
September 15...	Cavina	Elders & Fyffes, Ltd	Avonmouth via wayports.	September 15..	Virginia	American Fruit & S. S. Corp.	New Orleans, La.
September 15..	Heredia	United Fruit Co	New Orleans via Habana.	September 15..	Anachucuna [15]	United Fruit Co	Colon, R. P.
September 15...	Jan Van Nassau	Royal Netherlands S. S. Co	Cartagena, Colombia.	September 15..	Commodore Rollins	United Fruit Co	Perme, R. P.
September 15..	Anachucuna [15]	United Fruit Co	Colon, R. P.				

[15] Motor boat.

PORT OF BALBOA.

September 9...	Craftsman [16]	R. J. McArdle Contracting Co.	Buenaventura, Colombia.	September 10..	Nora	Grace Line	Los Angeles, Calif.
September 9...	Nora	Grace Line	Los Angeles, Calif.	September 11..	Craftsman [16]	R. J. McArdle Contracting Co.	Buenaventura, Colombia.
September 10...	Alaska	French Line	High seas.	September 12..	Dos Hermanos [17]	A. Valdez	Bayano River, R. P.
September 12...	Dos Hermanos [17]	A. Valdez	Bayano River, R. P.	September 13..	Craftsman [16]	R. J. McArdle Contracting Co.	Buenaventura, Colombia.
September 12..	Bessie [17]	Isthmian Land & Fruit Co.	El Real, R. P.	September 14..	Dilworth	Colombia-Pacific Shipping Co.	Los Angeles, Calif.
September 12..	Craftsman [16]	R. J. McArdle Contracting Co.	High seas.	September 15..	Chiman [18]	Isthmian Land & Fruit Co.	El Real, R. P.
September 13...	Dilworth	Colombia-Pacific Shipping Co.	Los Angeles, Calif.				
September 14...	Mojave	General Petroleum Corp	Los Angeles, Calif.				
September 15..	San Luis [17]	Chiriqui Land Co	Pto. Armuelles, R. P.				

[16] Tug. [17] Motor schooner. [18] Motor ship. * Other than ships passing through the Canal.

Cargo Through Canal During August, 1928.

On pages 84 and 85 of this issue will be found tables showing the origin and destination of cargo passing through the Canal during August, 1928. The aggregate of all cargo for the month was 2,425,336 tons, as compared with 2,429,947 tons passing through the Canal in August of last year. Pacific-to-Atlantic cargo movement decreased 87,932 tons under August, 1927, while the Atlantic-to-Pacific tonnage increased 83,321 tons. The present depression in the California mineral oil movement through the Canal as compared with last year is the chief reason for the decreased Atlantic-bound movement, together with rather heavy decreases in shipments of lumber, nitrates, and ores. While the total decreases in these four commodities aggregate 257,039 tons under August of last year, increases in wheat, canned goods, and barley offset partly this heavy loss.

ATLANTIC-TO-PACIFIC CARGO MOVEMENT.

Origin.—Over 69 per cent of the cargo from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 23 per cent in Europe. Cargo originating in the United States was 76,237 tons, or 17.1 per cent greater than the amount coming from that area in August last year. Cargo from Europe showed a small actual increase, although the percentage of the total cargo passing through the Canal in August, 1928, was somewhat smaller than that coming from Europe in August last year. The actual increase was less than 3,000 tons.

Destination.—Over 40 per cent of the Pacific-bound cargo tonnage was destined to the United States; 24.4 per cent to Asia (including the Philippines); 15.6 per cent to Australasia; and 13.6 per cent to South America. Cargo tonnage to the United States, Asia, and Australasia showed increases of 17,251 tons, or 6 per cent, 69,932 tons, or 60.9 per cent, and 9,411 tons, or 8.7 per cent, respectively, over August last year. While the tonnage to the United States and Australasia showed actual increases, the percentage of the total cargo was smaller in August this year. Cargo to South America showed an actual as well as a relative decrease under that of August, 1927. This decrease amounted to 8,931 tons, or 8.7 per cent.

PACIFIC-TO-ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo tonnage moving in this direction, 56 per cent originated on the west coast of the United States; 27.4 per cent in South America; 9.9 per cent in Canada; 3.3 per cent in Asia (including the Philippines); and 2.7 per cent in Australasia. Cargo from the United States and South America showed decreases under August 1927, in the amounts of 141,927 tons, or 13.2 per cent, and 25,198 tons, or 5.4 per cent, respectively. The percentage of the total cargo from the United States in August last year was 61.2 per cent as compared with 56 per cent of the total in August this year, while that from South America was, relatively, approximately the same in 1928 as in 1927. Cargo from Canada showed a relative as well as an actual increase. The actual increase amounted to 71,477 tons, or 75.7 per cent, over August, 1927, which heavy increase was accounted for by the increased grain shipments from that area. Cargo tonnage from Asia and Australasia also increased 3,720 tons and 1,537 tons, respectively.

Destination.—Segregated according to destination, 53.1 per cent of the cargo in this direction went to the United States, and 39.2 per cent to Europe. Tonnage to the United States showed an actual decrease of 276,822 tons, or 23.7 per cent, as well as a relative decrease in its proportion of all cargo from the Pacific as compared with August

last year, while that to Europe increased 218,012 tons, or 49.7 per cent, together with a heavy relative increase in proportion of all cargo.

Over 200,000 tons of the decreased tonnage to the east coast of the United States was caused by lessened shipments of mineral oils. Mineral oil shipments to Europe increased approximately 80,000 tons over August, 1927. This item, together with heavy shipments of wheat, made up the larger portion of the gain in cargo tonnage to Europe.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 85 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 15 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic-to-Pacific-bound commodities which aggregated more than 10,000 tons for August, 1928, or August, 1927, are listed in the following tabulation, showing differences:

Commodity.	August, 1928.	August, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Ammonia	10,249	10,327	−78
Automobiles	18,779	8,361	+10,418
Cement	26,631	36,363	−9,732
Coal and coke	17,879	22,795	−4,916
Cotton	15,962	12,873	+3,089
Manufactured goods:			
Iron and steel	186,714	155,634	+31,080
Machinery	17,840	25,071	−7,231
Railroad material	10,424	10,043	+381
Tinplate	13,789	14,204	−415
Miscellaneous	15,171	7,887	+7,284
Metals, various	22,716	11,850	+10,866
Oils, mineral	69,494	52,882	+16,612
Paper	18,454	14,386	+4,068
Phosphates	37,168	19,581	+17,587
Sulphur	6,699	12,417	−5,718

The above 15 commodity groups comprise approximately 65 per cent of the cargo moving from the Atlantic to the Pacific during August, 1928. It will be noted that 9 of the items show increases and 6 decreases. The heaviest increases were in iron and steel, phosphates, mineral oils, and metals, while cement, machinery, sulphur, and coal and coke showed the heaviest decreases.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify almost 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of August, 1928. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	August, 1928.	August, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Barley	66,414	48,226	+18,188
Canned goods (fish, fruit, vegetables, etc.)	78,188	43,544	+34,644
Cold storage (food products) [1]	9,497	24,026	−14,529
Copra	10,707	3,917	+6,790
Fruit, dried	11,111	12,432	−1,321
Lumber	350,802	390,154	−39,352
Metals, various	51,810	44,493	+7,317
Nitrates	152,549	221,516	−68,967
Oils, mineral	475,301	589,341	−114,040
Ores (principally iron)	123,733	158,413	−34,680
Sugar	61,393	52,129	+9,264
Wheat	121,899	44,697	+77,202

[1] Does not include fresh fruit.

The above 12 commodity groups comprise over 90 per cent of the cargo moving from the Pacific to the Atlantic during August, 1928. Six of the items show increases and 6 decreases. The heaviest increase was in wheat, which showed a gain of 77,202 tons over August, 1927. Mineral oils, nitrates, lumber, and ores decreased heavily.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, August, 1928.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America.[1]	Balboa, C. Z.[2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	Australia.	New Zealand.	Australasia.[1]	Total, Australasia.		
North America:																								
UNITED STATES—																								
North Atlantic ports	18,358	2,036	965	6,725	2,082	30,166	217,970	321	1,514	....	10	1,694	221,509	42,493	18,164	13,829	15,818	90,304	37,108	2,904	.....	40,012	381,991	50.8
South Atlantic ports	.....	.....	.....	.....	.....	.....	2,680	.....	.....	.....	.....	.....	2,680	8,745	.....	50	12,344	21,139	.....	.....	.....	.....	23,819	3.2
Gulf ports	3,399	295	741	625	187	5,247	22,755	894	.....	.....	.....	207	23,856	33,660	22,046	1,744	14,439	71,889	13,200	.....	.....	13,200	114,192	15.1
Totals, U. S.	21,757	2,331	1,706	7,350	2,269	35,413	243,405	1,215	1,514	....	10	1,901	248,045	84,898	40,210	15,623	42,601	183,332	50,308	2,904	.....	53,212	520,002	69.1
Cristobal, C. Z.[3]	1,242	3,408	1,261	682	619	7,212	1,827	6	8,118	.....	.....	.....	9,951	.....	.....	.....	.....	.....	.....	.....	61	61	17,224	2.3
East coast of Canada	.....	.....	.....	.....	.....	.....	.....	2,511	.....	.....	.....	.....	2,511	580	.....	.....	.....	580	9,563	.....	.....	9,563	12,654	1.7
West Indies	7	.....	.....	.....	14	21	9	.....	.....	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	.....
East coast of Mexico and Central America	5,725	.....	.....	.....	.....	5,725	2,703	.....	1,992	....	.....	.....	4,695	.....	.....	.....	.....	.....	5,658	.....	.....	5,658	16,078	2.1
Totals, N. America	28,731	5,739	2,967	8,032	2,902	48,371	247,944	3,732	11,624	....	10	1,901	265,211	85,478	40,210	15,623	42,601	183,912	65,529	2,904	61	68,494	565,988	75.2
Europe:																								
British Isles	6,448	.....	688	2,547	2,121	11,804	6,026	4,931	.....	.....	.....	5,491	16,448	.....	.....	.....	.....	.....	.....	31,980	7,770	39,750	68,002	9.0
Belgium	2,156	1,180	1,018	784	4,364	9,502	13,108	430	2,364	....	5	.....	15,907	.....	.....	.....	.....	.....	.....	.....	.....	.....	25,409	3.4
Denmark	.....	.....	.....	.....	2,445	2,445	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,445	0.3
France	634	20	70	406	782	1,912	7,206	24	112	....	5	.....	7,347	.....	.....	.....	.....	.....	.....	.....	2,000	2,000	11,259	1.5
Germany	1,254	258	391	1,396	1,643	4,942	2,666	830	1,724	....	386	.....	5,606	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,548	1.4
Holland	1,570	49	225	549	208	2,601	5,815	554	.....	....	.....	.....	6,369	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,970	1.2
Italy	759	.....	.....	47	1,188	1,994	1,455	98	1,235	....	.....	.....	2,788	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,782	0.6
Norway and Sweden	.....	.....	45	.....	700	745	10,896	6	2,921	....	1,285	.....	15,108	.....	.....	.....	.....	.....	.....	.....	.....	.....	15,853	2.1
Spain and Portugal	254	.....	130	47	969	1,400	23	500	12	....	.....	.....	535	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,935	0.3
Europe[1]	5,325	160	244	1,149	9,518	16,396	2,957	1,891	2,790	....	30	.....	7,668	.....	.....	.....	.....	.....	.....	.....	.....	.....	24,064	3.2
Totals, Europe	18,400	1,667	2,811	6,925	23,938	53,741	50,152	9,264	11,158	....	1,711	5,491	77,776	.....	.....	.....	.....	.....	.....	31,980	9,770	41,750	173,267	23.0
E. coast of S. America	.....	318	.....	.....	.....	318	5,524	190	.....	.....	.....	82	5,796	79	.....	.....	240	319	.....	.....	.....	.....	6,433	0.9
Africa	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,820	.....	6,820	6,820	0.9
Grand totals	47,131	7,724	5,778	14,957	26,840	102,430	330,620	13,186	22,782	....	1,721	7,474	348,783	85,557	40,210	15,623	42,841	184,231	65,529	41,704	9,831	117,064	752,508	.....
Per cent of total cargo:																								
August, 1928	6.3	1.0	0.8	1.9	3.6	13.6	40.4	1.8	3.0	....	0.2	1.0	46.4	11.3	5.3	2.1	5.7	24.4	8.8	5.5	1.3	15.6	.....	100.0
August, 1927	10.0	1.0	1.0	3.6	1.0	16.6	42.7	3.7	1.4	....	1.1	1.3	50.2	9.6	4.6	2.7	0.2	17.1	8.8	7.3	.....	16.1	.....	100.0
August, 1926	1.5	1.2	.....	.....	9.1	11.8	38.4	3.7	0.9	1.1	.....	0.5	44.6	6.8	3.4	.....	13.1	23.3	9.1	10.3	0.9	20.3	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports. [2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, August, 1928.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.															Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Central America.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.[1]	Total, Europe.	East coast of South America.	Egypt.	South Africa.	Grand totals.	
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																					
South America:																									
Chile	132,297	12,524	3,531	148,352		342		209	148,903	28,059	5,786		2,584	20,851	1,764		925	1,024	93,803	154,796	100			303,799	18.1
Colombia	421			421				3,408	3,829						10					10				3,839	0.2
Ecuador	17,005			17,005				3,621	20,626	48	6		62	93	62			345		616	113			21,355	1.3
Peru	30,022			30,022	52,158			2,161	84,341	29,016	1,737	698		1,610	11,545					44,606				128,947	7.8
West coast So. Amer.[1]	28			28				290	318					225					38	263				581	
Totals, So. America	179,773	12,524	3,531	195,828	52,158	342		9,689	258,017	57,123	7,529	698	2,646	22,779	13,381		925	1,369	93,841	200,291	213			458,521	27.4
North America:																									
West coast of Canada	28,884		848	29,732	10,490	2,757			42,979	60,016	2,000		3,962	2,705	7,570	127	500		38,073	114,953	1,466		6,428	165,826	9.9
West coast Cen. Amer.	4,206			4,206		589		2,606	7,401								103			103				7,504	0.5
West coast of U. S.	555,740	5,249	34,550	595,539		15,403	7,907	8,231	627,080	232,200	4,026	300	3,385	16,861	8,155	9,014	1,680		29,508	305,129	3,258		35	935,502	56.0
Hawaii	1,845			1,845					1,845	1,294							125			1,419				3,264	0.2
Totals, N. America.	590,675	5,249	35,398	631,322	10,490	18,749	7,907	10,837	679,305	293,510	6,026	300	7,347	19,566	15,725	9,141	2,408		67,581	421,604	4,724		6,463	1,112,096	66.6
Asia:																									
China	9,608			9,608				375	9,983															9,983	0.6
Japan	1,970			1,970				18	1,988															1,988	0.1
Philippines	35,321		714	36,035					36,035															36,035	2.1
Far East[1]	2,636		88	2,724					2,724	5,881										5,881				8,605	0.5
Totals, Asia	49,535		802	50,337				393	50,730	5,881										5,881				56.611	3.3
Australasia:																									
Australia	3,479			3,479	6,004			18	9,501															9,501	0.6
New Zealand	3,078			3,078	253				3,331	11,068										11,068				14,399	0.8
Australasia[1]	3,800			3,800					3,800	8,917				33	1,750		7,200			17,900				21,700	1.3
Totals, Australasia	10,357			10,357	6,257			18	16,632	19,985				33	1,750		7,200			28,968				45,600	2.7
Grand totals	830,340	17,773	39,731	887,844	68,905	19,091	7,907	20,937	1,004,684	376,499	13,555	998	9,993	42,378	30,856	9,141	10,533	1,369	161,422	656,744	4,937		6,463	1,672,828	
Per cent of total cargo:																									
August, 1928	49.6	1.1	2.4	53.1	4.1	1.1	0.5	1.3	60.1	22.5	0.8	0.1	0.6	2.5	1.9	0.5	0.6	0.1	9.6	39.2	0.3		0.4		100.0
August, 1927	58.3	6.5	1.4	66.2	1.8	1.6		2.9	72.5	13.3	0.6		1.1	1.3	0.3	0.4	0.3	0.5	7.1	24.9	0.8	1.3	0.5		100.0
August, 1926	61.8	3.6	0.9	66.3	3.6	0.3		0.5	70.7	15.8	1.7	0.2	1.5	1.2	0.1		0.3	0.1	6.4	27.3	0.1	1.9			100.0

[1] General cargo not routed so as to allow segregation between definite ports.

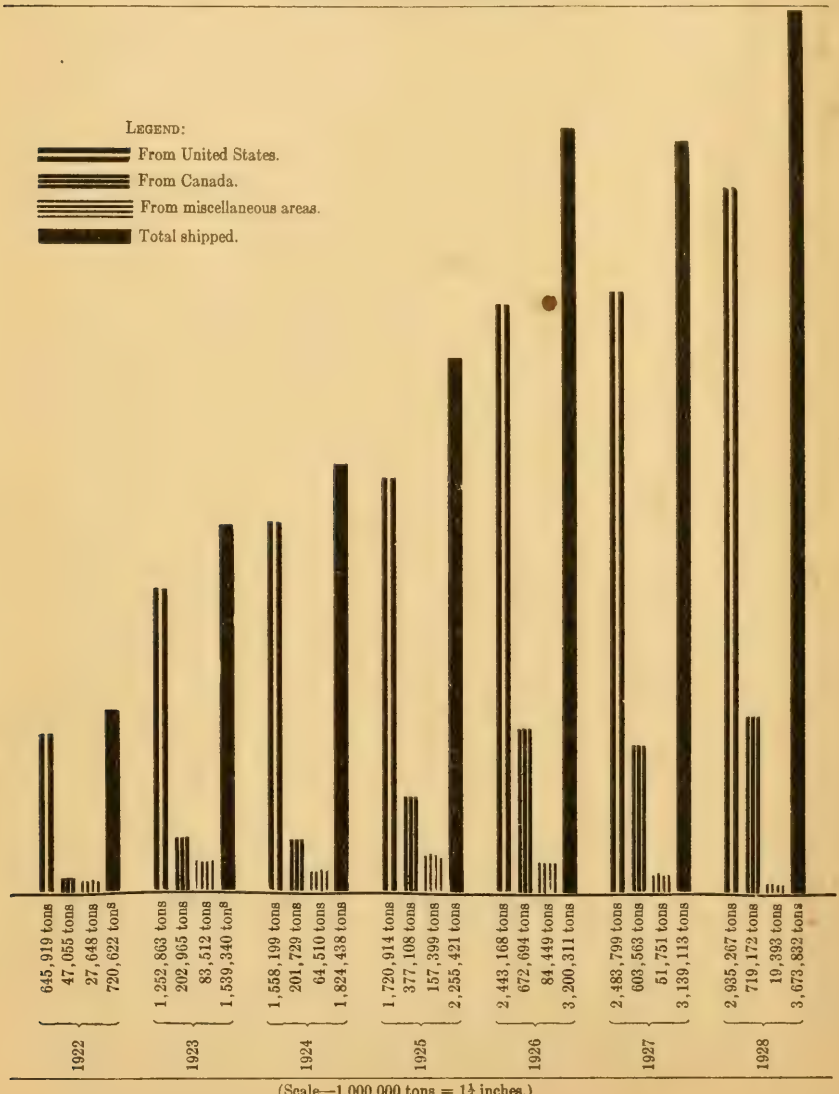
[2] Includes both local and transit cargo.

Lumber Shipments Through Canal in Fiscal Year, 1928.

Lumber shipments routed through the Panama Canal during the fiscal year ending June 30, 1928, totaled 3,707,234 tons, comprised 12.5 per cent of the total cargo in transit through the Canal during the year, and ranked second in importance of the commodities passing through the Canal during the year. Mineral oils (6,336,156 tons) formed the commodity of greatest quantity.

Of the total lumber routed through the Canal during the year, 33,402 tons passed from the Atlantic to the Pacific, and 3,673,832 tons from the Pacific to the Atlantic. Of the cargo from the Pacific,

Origin of Lumber Passing Through Panama Canal from Pacific to Atlantic During Fisca Years 1922 to 1928, inclusive.



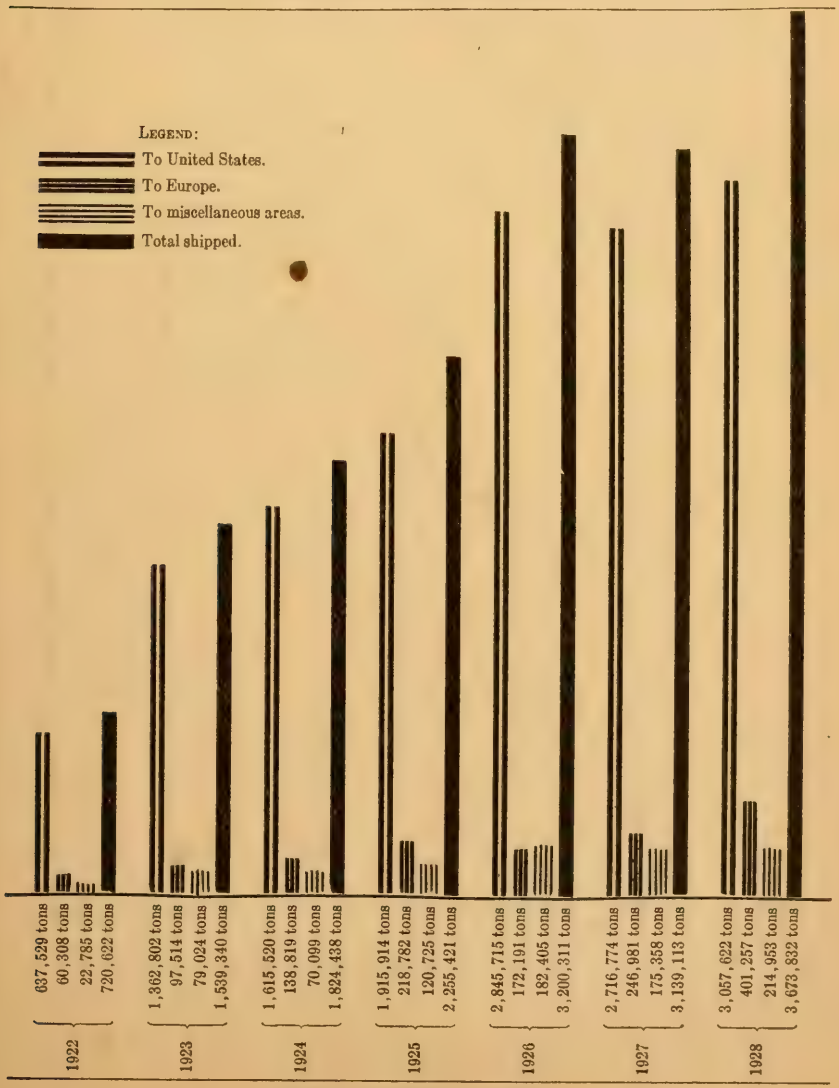
(Scale—1,000,000 tons = 1¼ inches.)

2,935,267 tons originated in the United States, 719,172 tons in Canada, and the balance of 19,393 tons consisted of small shipments from Central America, Australasia, Far East, and the Philippines.

Segregated according to destination, 3,057,622 tons of the Atlantic-bound lumber were shipped to the eastern seaboard of the United States, 401,257 tons to Europe, and the balance of 214,953 tons to the West Indies, South America, Central America, Africa, and Cristobal.

The graphs shown on pages 86 and 87 show by fiscal years since 1922, the total amount of this commodity routed through the Canal from the Pacific to the Atlantic and the important areas of origin and destination.

Destination of Lumber Passing Through Panama Canal from Pacific to Atlantic During Fiscal Years 1922 to 1928, inclusive.



(Scale—1,000,000 tons = 1¼ inches.)

Jacob's Ladders To Be in Proper Condition.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., *September 12, 1928.*

TO STEAMSHIP OWNERS AND AGENTS:

It has been brought to the attention of this office that on one occasion recently, on a vessel prepared to transit the Canal, due to the rotten condition of the rope in the Jacob's ladder, the ladder broke as the Custom Inspector was boarding the vessel, and only the fact that the boarding launch was close by prevented him from falling into the sea.

It is requested that all steamship companies take immediate steps to inspect their Jacob's ladders and see that they are in proper condition in order that safety of Canal pilots and other employees may be properly assured.

This circular is supplementary to Marine Superintendent's memorandum of November 7, 1927, regarding the proper rigging of Jacob's ladders.

C. H. WOODWARD,
Marine Superintendent.

Approved:
H. BURGESS,
Acting Governor.

Supplement No. 8.—Tariff No. 9

THE PANAMA CANAL, PANAMA RAILROAD COMPANY, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 11, 1928.*

ITEM 22.—FUEL AND DIESEL OILS.
(Effective September 8, 1928.)

2. Diesel oil, per barrel of 42 gallons, delivered to vessels at Cristobal..... $1.80

H. BURGESS,
Acting Governor, The Panama Canal,
2d Vice President, Panama Railroad Company.

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 17, 1928.*

No. 452.

PACIFIC OCEAN—PANAMA BAY.

"September 15, 1928, the characteristic of the South Fraile Combination Gas and Whistling Buoy was changed, and the light is now flashing 1 second light, 3 seconds dark, a period of 4 seconds. No other change. (Signed) F. KARIGER, *Pilot in Charge, Lighthouse Subdivision.*"

H. BURGESS,
Acting Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 19, 1928.*

No. 457.

The following was received by the Hydrographic Office from the Lighthouse Subdivision, The Panama Canal:

CRISTOBAL HARBOR.

"Effective September 17, 1928, Spar Buoys "A" and "B," marking the western limits of the merchant ship anchorage in Cristobal Harbor, were permanently discontinued. (Signed) F. KARIGER, *Pilot in Charge.*"

H. BURGESS,
Acting Governor.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending September 8, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Cristobal	Panama R. R. S. S. Line		September 2		3,175
Salvador	Pacific Steam Navigation Co		September 2		1,193
Kastalia	Donaldson S. S. Line	September 2	September 2	(1)	396
Ulua	United Fruit Co	September 2	September 2	14	193½
Mayari	United Fruit Co	September 2	September 2	(1)	427
Annam	Danish East Asiatic Co	September 2	September 3	96	(2)
Macabi	United Fruit Co	September 2	September 5	1	757
War Nizam	British Admiralty	September 2	September 7	7,529	(2)
Baralt	Royal Netherlands S. S. Co	September 2	September 8	367	188
Aconcagua	Chilean Line	September 3	September 3	10	4
Cartago	United Fruit Co		September 3		23
Alaska	French Line	September 3	September 4	33	(2)
Toloa	United Fruit Co	September 3	September 5	1,136	10
Linda S.	R. Feuillebois	September 4	September 4	(1)	43
Westfalen	Colombian Transport Co	September 4		171	
Los Angeles	Hamburg-American Line	September 4	September 5	(1)	217½
Iowa	French Line	September 4	September 5	381	16
Kinderdijk	Holland-American Line	September 4	September 7	690	232
Saramacca	United Fruit Co	September 5	September 5	890	40
Venezuela	Royal Netherlands S. S. Co	September 5	September 5	(1)	6
William M.	R. Feuillebois	September 5	September 5	(1)	28
Volumnia	DuPont & Co	September 5	September 5	165	(2)
London Importer	Furness, Withy & Co	September 5	September 6	(1)	105
Oroya	Pacific Steam Navigation Co	September 5	September 6	53	365
Santa Marta	United Fruit Co	September 5	September 6	811	422
Favorita	American Fruit & S. S. Corp	September 6	September 6	285	1
Suriname	United Fruit Co	September 6	September 6	122	22
Cali	North German Lloyd	September 6	September 7	233	(2)
Cerigo	Hamburg-American Line	September 6		730	
Macoris	United Fruit Co	September 6	September 8	390	850
San Mateo	United Fruit Co	September 7	September 8	690	394
Itauri	Hamburg-American Line	September 7	September 8	321	72
City of San Francisco	Panama Mail S. S. Co	September 7		1,022	
Venezuela	Royal Netherlands S. S. Co	September 7	September 8	14	202½
La Paz	Pacific Steam Navigation Co	September 8	September 8	(1)	101
Knute Nelson	Peter Olsen S. S. Line	September 8		290	
Maravi	United Fruit Co	September 8		365	
Favorita	American Fruit & S. S. Corp	September 8	September 8	(1)	407
Parismina	United Fruit Co	September 8		403	

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending September 16, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Knute Nelson	Norway-Pacific Line	September 9	September 10	610	
Leon XIII	Spanish Line	September 9	September 10	218	
Craftsman	McArdle Contracting Co	September 10	September 10		2
Guatemala	Grace Line	September 11	September 12	19	
Kako Maru	Nippon Yusen Kaisha	September 12	September 12	349	
Nitokris	Hamburg-American Line	September 12	September 13	428	4
Uribe	Colombian Transportation Co	September 12	September 12		50
U. S. Grant	U. S. Army Transport Service	September 12	September 13	65	13
Dilworth	United States Shipping Board	September 13	September 14	10,000	
Mojave	Standard Transportation Co	September 14	September 15	10,369	
Manchuria	Panama-Pacific Line	September 15	September 15		1
Kellerwald	Hamburg-American Line	September 16	September 16	75	
City of San Francisco	Panama Mail S. S. Co	September 16	September 16		108
Cauca	National Navigation Co	September 14	September 15	4	

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

United States Intercoastal Traffic by Commodities for August, 1928.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for August, 1928, and the totals for August, 1927, and 1926. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise but they are indicative of the kind and quantity of the cargo in transit through the Canal. The figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Aeroplanes	100		100
Agricultural implements	507	20	527
Alfalfa meal		942	942
Ammonia	117		117
Ammunition	17		17
Asbestos	459	140	599
Asphalt	403	500	903
Automobiles	558	111	669
Automobile accessories	384	86	470
Beans		3,724	3,724
Bones and bonemeal	72		72
Borax	109	1,547	1,656
Bricks	883		883
Burlap	227	361	588
Calcium carbide	26		26
Camphor		166	166
Canned goods:			
Fish	393	13,997	14,390
Fruit	357	28,198	28,555
Meat	84	357	441
Milk	45	1,147	1,192
Soup	256		256
Vegetables	1,414	3,756	5,170
Miscellaneous	2,427	4,525	6,952
Carbon black	15		15
Celite filtercel		817	817
Cement	1,000	29	1,029
Charcoal	51	40	91
Chemicals	1,405	1,045	2,450
China and fire clay	397	70	467
Coal	4,201		4,201
Cocoa	324	10	334
Coconuts		668	668
Coffee	257	100	357
Cold storage:			
Cheese	10	30	40
Eggs		85	85
Lard	520		520
Meat	24		24
Other	792		792
Confectionery	650		650
Cork	231		231
Corn	30		30
Cotton	62	1,512	1,574
Drugs	1,829	249	2,078
Earthenware	66	40	106
Eggs, dried		68	68
Explosives	10	5	15
Fertilizer	91		91
Fish meal		15	15
Flour	181	5,383	5,564
Fruit:			
Dried	56	7,802	7,858
Fresh		87	87
Furniture	320		320
General	56,093	11,556	67,649
Glass and glassware	1,945	240	2,185
Glue	41		41
Guano		350	350
Hair	23	58	81
Hardwoods	65	194	259
Hats		30	30
Hay		1,092	1,092
Hemp	86	1,454	1,540
Honey		72	72
Infusorial earth		200	200

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Ink	48	.....	48
Jute	197	310	507
Linoleum	1,150	170	1,320
Liquors	162	.....	162
Lumber	3,642	232,134	235,776
Malt	120	.....	120
Manufactured goods:			
Iron and steel	100,418	1,581	101,999
Machinery	4,315	702	5,017
Railroad material	766	.....	766
Tinplate	7,621	.....	7,621
Textiles	2,149	184	2,333
Miscellaneous	8,580	2,053	10,633
Marble	294	.....	294
Matches	121	.....	121
Metals:			
Copper	35	9,951	9,986
Lead	120	35	155
Scrap	516	480	996
Tin	26	.....	26
Zinc	68	32	100
Other	18	.....	18
Milk, powdered	.....	451	451
Molasses	92	.....	92
Nitrates	.....	200	200
Nuts	.....	137	137
Oils:			
Coconut	.....	53	53
Cottonseed	188	.....	188
Crude	.....	33,205	33,205
Gas oil, fuel oil	64	8,527	8,591
Gasoline, benzine, naphtha	.....	184,500	184,500
Linseed	33	.....	33
Lubricating and greases	6,438	903	7,341
Olive	45	.....	45
Vegetable	71	135	206
Wood	17	182	199
Other	.....	155	155
Ores:			
Copper	.....	1,460	1,460
Magnesite	.....	2,079	2,079
Manganese	20	.....	20
Zinc	.....	17	17
Other	75	.....	75
Paint	807	97	904
Paper	5,941	4,279	10,220
Paper, pulp	54	1,001	1,055
Paper, roofing	95	.....	95
Peanuts	.....	191	191
Peas	.....	201	201
Phosphates	2,169	.....	2,169
Plaster	30	.....	30
Porcelain	240	983	1,223
Quicksilver	.....	5	5
Rags	61	1,200	1,261
Rice	67	555	622
Rope	107	80	187
Rosin	1,049	.....	1,049
Rubber:			
Manufactured	587	93	680
Raw	328	.....	328
Scrap	.....	166	166
Salt	366	132	498
Sand	1,350	.....	1,350
Seeds:			
Grass	.....	177	177
Other	.....	121	121
Shells	2,278	.....	2,278
Silk	.....	343	343
Skins and hides	.....	1,108	1,108
Slate	254	.....	254
Soap	3,305	185	3,490
Soda	339	.....	339
Soda ash	1,233	.....	1,233
Soda, bicarbonate	23	.....	23
Soda, caustic	962	.....	962
Starch	82	.....	82
Sugar	328	9,003	9,331
Sulphur	16	.....	16
Syrup	188	118	306
Talc	.....	143	143
Tallow	.....	165	165
Tar	47	.....	47
Tea	20	.....	20
Tobacco	2,969	59	3,028

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Toys	433	58	491
Turpentine	356	.....	356
Vegetables	15	.....	15
Waste	36	801	837
Wax	180	30	210
Wheat	.....	70	70
Wine	.....	263	263
Wool	.....	1,398	1,398
Zinc oxide	68	.....	68
Totals, August, 1928	243,405	595,539	838,944
Totals, August, 1927	227,472	821,643	1,049,115
Totals, August, 1926	202,875	755,927	958,802

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessels furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Circular.

Appointment.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 14, 1928.*

To all concerned—Effective September 18, 1928, Mr. Roy R. Watson is appointed Chief Quartermaster, The Panama Canal, *vice* Mr. Robert K. Morris, resigned, and Mr. James H. K. Humphrey is appointed Superintendent, Supply Department, *vice* Mr. Roy R. Watson, promoted.

By direction of Governor M. L. WALKER.

H. BURGESS,
Acting Governor.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., September 26, 1928. No. 8.

CANAL WORK IN AUGUST, 1928.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in August, 1928.

BALBOA HEIGHTS, C. Z., *September 15, 1928.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of August, 1928:

NUMBER OF TRANSITS.

During the month 526 commercial vessels passed through the Canal. In addition to these, 6 nonseagoing launches, measuring under 20 tons, and 24 vessels belonging to or chartered by the United States Government transited the Canal. There was also one transit of a Colombian Government vessel and 6 transits of vessels solely for repairs on which no tolls were collected, making a total of 563 transits for the month, or a daily average of 18.16.

Tolls on the 526 commercial vessels amounted to $2,199,069.31, and on the launches to $42.39, a total of $2,199,111.70, or a daily average on all traffic of $70,939.09.

The total numbers of craft of all kinds transiting the Canal during the month of August, 1928, as compared with the same month in 1927 and 1926, are shown in the following tabulation:

	August, 1928.	August, 1927.	August, 1926.
Commercial vessels	526	543	464
Noncommercial vessels (Army and Navy)	24	34	26
Launches (under 20 tons measurement)	6	17	7
Panaman Government vessels	.....	.....	1
Colombian Government vessels	1	.....	.....
Vessels for repairs	6	2	.....
Total vessels transiting Canal	563	596	498

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	6	10	16
Pedro Miguel	23	27	50
Miraflores	24	26	50
Totals	53	63	116

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the calendar year 1928 to the end of August, 1928, as compared with the same months in the preceding year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927.	1928.	1927.	1928.	1927.	1928.	1927.	1928.
January	443	540	2,121,631	2,422,770	2,241,765	2,372,061	$1,984,760.71	$2,212,752.50
February	449	547	2,201,328	2,460,111	2,230,107	2,660,425	1,994,860.82	2,253,755.37
March	496	542	2,413,999	2,441,077	2,533,525	2,428,662	2,217,913.20	2,223,370.57
April	464	531	2,224,500	2,384,491	2,429,807	2,473,884	2,065,206.92	2,187,607.82
May	471	508	2,248,892	2,274,612	2,379,713	2,497,588	2,066,070.73	2,118,969.83
June	455	481	2,152,926	2,227,865	2,229,097	2,139,565	1,970,377.97	2,016,211.09
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	2,215,515.99	2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
Totals	3,830	4,184	18,283,845	18,966,567	18,924,429	19,289,476	16,788,746.89	17,320,819.68

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for August, 1928, as compared with the corresponding month in 1927 and 1926, and the monthly averages for the fiscal year 1928:

	August, 1928.	August, 1927.	August, 1926.	Average per month for fiscal year 1928.
Number of vessels	526	543	464	538
Panama Canal net tonnage	2,437,246	2,513,614	2,230,905	2,454,886
United States net tonnage	1,856,567	1,957,705	1,752,102	1,905,316
Registered gross tonnage	3,057,245	3,188,317	2,866,120	3,100,239
Registered net tonnage	1,870,211	1,952,572	1,760,522	1,903,974
Tolls	$2,199,069.31	$2,274,040.55	$2,055,041.91	$2,245,374.98
Tons of cargo carried	2,425,336	2,429,947	2,321,697	2,469,225

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year.
	August, 1928.	August, 1927.	August, 1926.	
Number of transits	16.97	17.52	14.96	17.63
Panama Canal net tonnage	78,621	81,084	71,294	80,488
Tolls	$70,937.72	$73,356.15	$66,291.57	$73,618.85
Tons of cargo carried	78,236	78,385	74,893	80,958

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of August, 1928, as compared with August, 1927 and 1926, are shown in the following tabulation:

	Average per vessel.		
	August, 1928.	August, 1927.	August, 1926.
Panama Canal net tonnage	4,633	4,629	4,808
United States net tonnage	3,530	3,605	3,776
Registered gross tonnage	5,812	5,872	6,177
Registered net tonnage	3,555	3,596	3,794
Tolls	$4,180.74	$4,187.92	$4,428.96
Tons of cargo (including vessels in ballast)	4,611	4,475	5,003
Tons of cargo (laden vessels only)	5,525	6,000	6,174

TOLLS.

At present, tolls are collected at rates of $1.20 per net ton for laden vessels and 72 cents per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed $1.25 per ton nor be less than 75 cents per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined both in accordance with the Panama Canal and the United States rules of measurement.

Due to this limiting proviso the tolls actually collected on laden vessels averaged $0.937 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.721 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of August, 1928, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1.00 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian	$3,582.72	$2,985.60		$597.12
British	621,661.80	655,255.40	$33,593.60	
Chilean	12,915.00	14,049.00	1,134.00	
Colombian	3,328.93	2,842.40		486.53
Danish	33,169.31	39,392.20	3,222.89	
Danzig	17,673.20	16,251.00		1,422.20
Dutch	39,326.25	46,320.00	6,993.75	
Finnish	2,024.40	1,687.00		337.40
French	38,386.25	38,541.00	154.75	
German	101,798.04	112,823.20	11,025.16	
Italian	27,122.50	29,610.00	2,487.50	
Japanese	66,742.50	67,672.00	929.50	
Norwegian	98,887.00	104,870.00	5,983.00	
Panaman	8,475.00	10,103.00	1,628.00	
Peruvian	4,307.30	6,339.00	2,031.70	
Spanish	7,471.25	7,573.00	101.75	
Swedish	39,945.81	42,464.80	2,518.99	
United States	1,057,179.55	1,071,312.80	14,133.25	
Yugoslav	12,072.50	11,629.00		443.50
Totals	2,199,069.31	2,281,720.40	85,937.84	3,286.75
Net increase for all traffic			82,651.09	

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$15,959.28
United States foreign trade	90.25
United States–Canal Zone trade	[1] 1,916.28
Net increase	14,133.25

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in August, 1928, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	.82	1.47	1.19
Chilean	.50	.48	.49
Colombian	1.84	1.11	1.39
Danish	1.20	1.57	1.31
Danzig		1.85	1.85
Dutch	.66	1.38	1.20
Finnish		1.74	1.74
French	.54	1.70	.97
German	.76	1.35	1.11
Italian	.32	1.64	.80
Japanese	.119	1.28	1.23
Norwegian	1.22	1.70	1.47
Panaman	1.13	.87	.94
Peruvian	.11	1.08	.71
Spanish	.10	.47	.29
Swedish	.95	2.20	1.57
United States	.83	1.41	1.16
Yugoslav	1.48	2.05	1.87
Averages, August, 1928	.85	1.45	1.18
Averages, August, 1927	.86	1.57	1.29
Averages, August, 1926	.93	1.55	1.29

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of August, 1928, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	3	14,819	$14,378.75	48	260,010	$267,687.50
Ballast	43	237,270	170,834.40	1	8,665	6,238.80
General cargo ships:						
Laden	189	877,692	802,184.80	200	895,821	834,492.05
Ballast	31	134,517	97,056.75	3	7,608	5,477.76
Noncargo-carrying ships:						
Tugs	1	90	108.00	2	263	252.69
Yachts	4	471	342.81	1	20	15.00
Totals	271	1,264,859	1,084,905.51	255	1,172,387	1,114,163.80
Method of propulsion:						
Steam	209	987,987	864,271.60	212	963,551	916,352.32
Motor	59	276,429	220,271.51	42	207,149	195,787.08
Motor (schooner)	1	34	25.50	....	.....	.....
Nonpropelled	2	409	336.90	.....	.....	.....
Sail	.....	.....	.....	1	1,687	2,024.40
Totals	271	1,264,859	1,084,905.51	255	1,172,387	1,114,163.80

Of the 421 steam-driven vessels, 292 were oil burning, 127 coal burning, and 2 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of August, 1928. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and Nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Ammunition ships	1	[3] 4,405	$5,506.25	.....	.....	.....
Cruisers	2	[1] 11,350	5,675.00	2	[1] 11,350	$5,575.00
Gunboats	.....	.....	.....	1	[1] 1,575	787.50
Minesweepers	1	[2] 950	475.00	1	[2] 950	475.00
Submarines	4	[3] 3,082	1,541.00	3	[2] 2,562	1,281.00
Supply ships	1	[3] 3,415	4,268.75	.....	.....	.....
Survey ships	1	[2] 2,600	1,300.00	1	[2] 2,600	1,300.00
Tankers	1	[2] 5,102	3,673.44	.....	.....	.....
Tugs	1	[1] 1,000	500.00	1	[1] 1,000	500.00
U. S. Army vessels:						
Launches	1	[3] 10	7.50	.....	.....	.....
Transports	1	[3] 3,908	4,885.00	1	[3] 5,764	7,205.00
Totals, U. S. Government	14	.....	27,831.94	10	.....	17,123.50
Colombian Government vessels:						
Supply ships	1	[3] 427	533.75	.....	.....	.....
Vessels for repairs:						
Tankers	3	[3] 3,882	2,911.50	3	[3] 3,882	2,911.50
Grand totals	18	.....	31,277.19	13	.....	20,035.00

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of August, 1928, carried cargo as follows: Atlantic to Pacific, 7,255 tons; Pacific to Atlantic, 2,244 tons; total, 9,499 tons.

The following statement shows the number of launches transiting the Canal during the month of August, 1928. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific	5	49	$40.14
Pacific to Atlantic	1	3	2.25
Totals	6	52	42.39

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of August, 1928, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving.....tons.	82,470	8,148	90,618
Local cargo shipped.....tons.	7,164	1,162	8,326
Transit cargo arriving.....tons.	2,428,407	2,443,258	4,871.665
Transit cargo clearing.....tons.	2,355,129	2,453,961	4,809,090
Cargo received for transshipment.....tons.	36,240	1,528	37,768
Cargo transshipped.....tons.	39,381	1,575	40,956
"Canal Zone for orders" cargo:			
Number of receipts issued	68	20	88
Number of withdrawals	405	159	564
Tons received	1,243	166	1,409
Tons withdrawn	1,830	190	2,020
Packages received	5,741	2,069	7,810
Packages withdrawn	8,109	2,190	10,299
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company	67	9	76
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company.....tons.	19,683	52	19,735
Coal issued, miscellaneous:			
Panama Canal departments.....tons.	53	99	152
U. S. Army, excepting vessels.....tons.	31	.....	31
Individuals and companies.....tons.	155	.....	155
Transferred to Navy.....tons.	151	.....	151
Total sales and issues.....tons.	20,073	151	20,224
Coal on hand, August 1, 1928.....tons.	53,399	.....	53,399
Coal on hand, September 1, 1928.....tons.	64,189	.....	64,189
Coal received during month.....tons.	30,863	.....	30,863
Coal received from Navy.....tons.	.....	151	151
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments.....bbls.	8,247.61	15,999.06	24,246.67
Panama Railroad Company.....bbls.	662.70	.....	662.70
U. S. Army and Navy.....bbls.	.....	86.68	86.68
Individuals and companies.....bbls.	.....	134.53	134.53
Total sales and issues.....bbls.	8,910.31	16,220.27	25,130.58
Fuel oil on hand, September 1, 1928.....bbls.	[1] 83,591.76	[1] 29,842.45	113,434.21
Diesel oil sold during August, 1928.....bbls.	180.35	619.92	800.27
Diesel oil on hand, September 1, 1928.....bbls.	[2] 23,786.61	493.25	24,279.86
Miscellaneous transfers.....bbls.	558.19	710.36	1,268.55
Gasoline and kerosene pumped for The Panama Canal.....bbls.	4,548.67	8,222.50	12,771.17
Gasoline pumped for individuals and companies.....bbls.	.....	5,383.62	5,383.62
Oil pumped for individuals and companies.....bbls.	485,366.39	228,064.54	713,430.93
Total fuel oil, gasoline, and kerosene handled.....bbls.	499,563.91	259,221.21	758,785.12
Admeasurement of vessels:			
U. S. equivalent certificates issued	22	2	24
Measured for Panama Canal net tonnage	7	1	8
Remeasured for Panama Canal net tonnage	20	1	21
Panama Canal net tonnage corrected	.....	6	6
U. S. equivalent tonnage corrected	7	13	20
Service of harbor equipment:			
Tugs, total operating hours	503½	305¼	808¾
Launches, total operating hours	1,367½	1,589½	2,957

[1] Includes inventory overage of 152.29 barrels at Cristobal, and 1,305.98 barrels at Balboa.

[2] Includes inventory overage of 2.31 barrels.

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc.:			
Tug revenue	$15,313.75	$9,516.25	$24,830.00
Pilotage	20,617.00	8,459.00	29,076.00
Seamen	12,448.00	11,704.00	24,152.00
Launch service	1,961.50	3,005.50	4,967.00
Wharfage	17,767.68	5,868.01	23,635.69
Ships measured	280.00	50.00	330.00
Miscellaneous	969.60	658.50	1,628.10
Ships repaired at Panama Canal shops:			
Commercial	60	17	77
U. S. Army and Navy	7	8	15
Panama Canal equipment	8	15	23
Totals	75	40	115
Vessels dry docked:			
Commercial	9	3	12
U. S. Army and Navy	1	4	5
Panama Canal equipment	2	5	7
Totals	12	12	24
Clearances issued	309	281	590
Bills of health issued	315	282	597

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	596	3,382,766	2,061,919	542	3,130,169	1,918,575
Vessels entering port but not transiting Canal	66	275,332	165,241	11	18,246	11,787
Vessels transiting Canal and handling passengers and cargo at terminal ports	124	691,270	421,431	99	598,220	366,607
Ships clearing.						
All vessels, including those transiting Canal	599	3,399,810	2,070,213	548	3,168,780	1,948,179
Vessels clearing port but not transiting Canal	67	279,579	166,481	15	34,025	26,262
Vessels transiting Canal and handling passengers and cargo at terminal ports	129	713,423	435,229	100	613,662	375,915

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,448	830	2,278	92	326	418
From Pacific ports	250	102	352	254	250	504
Total disembarking	1,698	932	2,630	346	576	922
Embarking:						
For Atlantic ports	1,447	817	2,264	88	69	157
For Pacific ports	248	86	334	286	224	510
Total embarking	1,695	903	2,598	374	293	667
Remaining on board:						
From Atlantic to Pacific ports	1,442	3,108	4,550	1,334	2,458	3,792
From Pacific to Atlantic ports	1,582	1,409	2,991	1,690	1,234	2,924
From Atlantic to Atlantic ports	644	127	771	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	13	270	283
Total remaining on board	3,668	4,644	8,312	3,037	3,962	6,999
Total arriving	5,366	5,576	10,942	3,383	4,538	7,921
Total departing	5,363	5,547	10,910	3,411	4,255	7,666

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	271	47	17.3
Pacific to Atlantic	255	63	24.7
Totals	526	110	20.9

In addition to the aforesaid, 65 passenger-carrying vessels called at the port of Cristobal and 3 at the port of Balboa, without transiting the Canal, making a total of 178 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of August, 1928:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$3,143.81	$13,298.56	$29,424.77	$121.85	$6,212.38	$52,201.37
Government vessels	189.23	121.58	6,617.28	46.73	359.11	7,333.93
Panama Railroad vessels	24.30	45.12	1,991.02	991.51	312.57	3,364.52
Total sales, August, 1928	3,357.34	13,465.26	38,033.07	1,160.09	6,884.06	62,899.82
Total sales, August, 1927	2,478.31	13,525.62	33,574.69	967.58	5,998.04	56,544.24
Total sales, August, 1926	2,465.85	13,349.93	36,169.13	814.39	5,453.47	58,252.77
Sales at Balboa to:						
Commercial vessels	1,641.17	13,992.05	11,946.97	199.93	3,849.49	31,629.61
Government vessels	528.92	5,979.85	16,901.47	541.64	1,678.58	25,630.46
Total sales, August, 1928	2,170.09	19,971.90	28,848.44	741.57	5,528.07	57,260.07
Total sales, August, 1927	2,199.59	13,786.01	46,025.62	657.65	4,445.05	67,113.92
Total sales, August, 1926	1,316.57	13,637.07	24,819.93	501.69	4,599.46	44,874.72

The aggregate sales to Government vessels during the month was $32,964.39; to Panama Railroad vessels, $3,364.52; and to other commercial vessels, $83,830.98; making the total sales to all vessels, $120,159.89.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of August, 1928, as compared with the corresponding month in 1927 and 1926:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Aug., 1928.	Aug., 1927.	Aug., 1926.
Gatun	243	250	493	10	12	22	515	530	457
Pedro Miguel	246	256	502	12	21	33	535	560	491
Miraflores	246	256	502	13	21	34	536	549	478
	Number of vessels put through locks.								
Gatun	253	271	524	30	33	63	587	624	523
Pedro Miguel	256	272	528	40	47	87	615	666	575
Miraflores	256	272	528	42	46	88	616	660	556

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	32	29	28
Panama Canal equipment	16	50	50
Launches (under 20 tons)	8	1	3
Colombian Government vessels	1	1	1
Vessels for repairs	6	~	6

The total consumption of water for lockages and loss in leakage was as follows in August, 1928, as compared with the preceding month and the corresponding month in 1927:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	2,122,910,000	1,703,530,000	1,607,800,000
Leakage	20,000,000	30,000,000	20,000,000
Totals, August, 1928	2,142,910,000	1,733,530,000	1,627,800,000
Totals, July, 1928	2,074,850,000	1,744,930,000	1,567,360,000
Totals, August, 1927	2,130,840,000	1,789,270,000	1,689,670,000

HYDROGRAPHY.

In the following tabulation the hydrographic conditions in the Canal Zone and vicinity during the month of August, 1928, are shown in comparative form:

	August.		August—Years of record.		
	1928.	1927.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Chagres River at Alhajuela:					
Monthly mean discharge	3,410	3,686	4,724	1,579	3,028
Maximum momentary discharge	11,889	18,100	[1] 36,100	.....	.....
Gatun Lake watershed:					
Total yield	9,862	9,855	11,656	5,084	8,268
Net yield	9,385	9,291	11,089	4,437	7,731
Draft on Gatun Lake for lockages	2,862	2,868	2,868	[2] 1,390	[2] 2,245

[1] August 21, 1911. [2] Does not include August, 1914.

The total yield of the Gatun Lake watershed for the month of August was 19 per cent above the 15-year August average, or 9,862 c. f. s., compared with an average of 8,268 c. f. s. Maximum and minimum August total yields of record are 11,656 c. f. s. in 1917, and 5,084 c. f. s. in 1919, respectively. The lake varied in elevation from 85.39 feet on the 18th to 85.74 feet on the 9th, averaged 85.56 feet, and ended at elevation 85.52 feet. There was an increase in storage during the month of 365 million cubic feet, the equivalent of .08 foot on Gatun Lake. The net yield for the month amounted to 25.1 billion cubic feet.

Miraflores Lake varied in elevation from 53.35 feet on the 27th to 54.54 feet on the 8th, averaged 53.99 feet, and ended at elevation 54.11 feet. One hundred and sixty-eight c. f. s. were wasted over Miraflores spillway.

SEISMOLOGY.

One seismic disturbance was recorded during the month, on the 4th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 4,893,800 kilowatt hours, and the computed water consumption was 3,838,122,409 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had no generator output during the month. The fuel oil consumption at the latter plant was 18.71 barrels.

In addition to the usual operating and maintenance work performed, 91 work orders comprising 137 items of additions or repairs were completed on 52 vessels during the month. There were 411 work orders issued during the month, as compared with 350 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 75 vessels at Cristobal and 40 at Balboa. Twelve vessels were drydocked at Cristobal and 12 at Balboa. The annual overhaul of the submarines *O–7* and *O–10* was continued during the month.

MUNICIPAL ENGINEERING DIVISION.

Work was performed on several improvements in the cities of Colon and Panama, and in the Canal Zone. The usual maintenance work was performed on roads, streets, and walks, and the sewer and water systems. The amount of water pumped during the month totaled 707,201,000 gallons.

DREDGING DIVISION.

A slide occurred on the morning of August 16 at Lirio curve. The top of the bank broke about 60 feet at elevation 138 feet, mean sea level. The material moved beyond the old prism line for a distance of 40 feet and resulted in a depth of 36 feet on the old prism line. The total amount of material involved was approximately 60,000 cubic yards. A dredge removed 30,050 cubic yards and by the end of the month the channel east of the new west prism line had been restored.

There were no other slides and no delays to shipping during the month.

The total excavation during August was 295,229 cubic yards, as follows:

Items.	Wet excavation.			Character of work.
	Earth.	Rock.	Total.	
Work excavation:				
Canal prism, Gaillard Cut—				
Project No. 2, Lirio curve	1,300	24,400	25,700	Maintenance.
Project No. 9, West Culebra basin	2,750	24,550	27,300	Maintenance.
Lirio slide	4,500	25,550	30,050	Maintenance.
Canal prism, Pacific entrance—				
Project No. 1	29,200	6,400	35,600	Maintenance.
Maintenance	39,000	5,700	44,700	Maintenance.
Balboa inner harbor—				
Project No. 1	.....	7,600	7,600	Maintenance.
Maintenance	1,900	.....	1,900	Maintenance.
Plant excavation:				
Naval Air Station fill, Coco Solo	118,000	.....	118,000	Auxiliary.
Dredging sand at Chame	4,379	.....	4,379	Auxiliary.
Totals	201,029	94,200	295,229	

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and twelve trips were made, and 81 Panama Canal, 19 U. S. Army, and 2,223 other vehicles, a total of 2,323, were ferried across the Canal.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on August 31, 1928, totaled 21,446, composed of 7,370 Americans, 2,648 of whom were men, 2,196 women, and 2,526 children; 209 Europeans, 98 of whom were men, 32 women, and 79 children; and 13,867 West Indians, 4,115 of whom were men, 2,581 women, and 7,171 children. The total number of persons in quarters on August 31, 1927, was 20,887.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of August 15, 1928, with a comparison of the working force for the preceding month and for August, 1927:

	As of August 15, 1928.			Total employees.	
	Gold.	Silver.	Total.	July, 1928.	Aug., 1927.
Operation and Maintenance:					
Office	42	58	100	101	80
Electrical	152	158	310	328	317
Municipal Engineering	81	683	764	750	641
Lock Operation	226	691	917	930	817
Dredging	179	905	1,084	1,107	1,094
Mechanical	462	836	1,298	1,281	1,302
Marine	211	713	924	922	819
Fortifications	24	348	372	399	184
Totals	1,377	4,392	5,769	5,818	5,254
Supply Department:					
Quartermaster	193	1,720	1,913	1,897	1,870
Subsistence	7	101	108	110	105
Commissary	223	1,168	1,391	1,374	1,290
Cattle Industry	5	128	133	139	228
Hotel Washington	10	95	105	100	104
Transportation	55	210	265	266	253
Totals	493	3,422	3,915	3,886	3,850
Accounting Department	196	8	204	203	208
Health Department	285	856	1,141	1,133	1,033
Executive Department	480	298	778	781	779
Totals	961	1,162	2,123	2,117	2,020
Panama Railroad Company:					
Superintendent	49	255	304	317	274
Transportation	66	120	186	183	180
Receiving and Forwarding Agency	85	1,246	1,331	1,162	1,858
Coaling stations	49	243	292	306	281
Totals	249	1,864	2,113	1,968	2,593
Grand totals, August, 1928	3,080	10,840	13,920	.....	.....
Grand totals, July, 1928	3,068	10,721	.....	13,789	.....
Grand totals, August, 1927	2,970	10,747	.....	.....	13,717

Additions to the gold force on the Isthmus in August were as follows: Employed in the United States, 9; reemployed in the United States, 5; employed on the Isthmust, 13; reemployed on the Isthmus, 13; total, 40. Separations from the gold force totaled 43, as follows: Resigned, 31; discharged, 11; died, 1. At the end of the month there were on file 131 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 194 deaths occurred during the month of August, 1928, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 17.98 per 1,000 population. The leading causes of death were: Pneumonia (broncho and lobar), 46; tuberculosis (various organs), 26; nephritis (acute and chronic), 15; diarrhea and enteritis, 13; and syphilis, 8. There were 6 deaths from organic diseases of the heart, 5 from apoplexy, 4 from influenza, and 1 each from whooping cough, diphtheria, erysipelas, and anthrax. There were 29 deaths among nonresidents of the Isthmus. These are not included in the above statistics.

There were 348 live births, and 26 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 34.65 per 1,000 population. Deaths among children under 1 year of age numbered 38, giving an infant mortality rate of 109.20.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during August was 150, of whom 29 were employees (8 white and 21 colored), 16 were members of employees' families (1 white and 15 colored), 26 were Canal Zone agriculturists, 37 were other civilian nonemployees, and 42 were Army and Navy personnel. Of the 45 employees and members of employees' families, 22 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick. There was one death from malaria among residents, an East Indian merchant, who died in Santo Tomas Hospital; no information was obtainable as to the probable place at which he received his infection.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $486,455.04, of which $448,775.83 was for the Department of Operation and Maintenance and $37,679.21 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to $44,410.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of July, 1928, as compared with July, 1927.

It is impossible to submit figures for the month of August at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	July, 1928.	July, 1927.
Tolls	$2,107,332.79	$2,215,657.50
Other receipts	293,750.55	284,641.63
Total transit revenues	2,401,083.34	2,500,299.13
Total transit expenses	1,053,305.70	935,643.72
Net transit revenues	1,347,777.64	1,564,655.41
Three per cent capital charge	615,809.74	609,556.66
Transit surplus	731,967.90	955,098.75
Business revenues	1,275,026.00	1,291,105.97
Business expenses	1,193,523.82	1,200,566.74
Net business revenues	81,502.18	90,539.23
Three per cent capital charge	60,102.79	58,195.16
Business surplus	21,399.39	32,344.07
Combined revenues	3,676,109.34	3,791,405.10
Combined expenses	2,246,829.52	2,136,210.46
Net revenues	1,429,279.82	1,655,194.64
Three per cent capital charge	675,912.53	667,751.82
Combined surplus	753,367.29	987,442.82

Respectfully,

H. BURGESS,
Acting Governor.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 22, 1928.*

No. 459.

The following was received by the Hydrographic Office from the Pilot in Charge, Lighthouse Subdivision of The Panama Canal:

PANAMA CANAL—GATUN LAKE.

The following changes to aids to navigation have been made:
Buoy No. 62 has been changed from a spar to a gas buoy showing a fixed red light.
Buoy No. 72 has been changed from a spar to a gas buoy showing a fixed red light.
Buoy No. 75 has been changed from a spar to a gas buoy showing a fixed white light.

(Signed) F. KARIGER, *Pilot in Charge.*

H. BURGESS,
Acting Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending September 15, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Stella	Panama Mail S. S. Co		September 9		1,230
Maravi	United Fruit Co		September 9		636
Knute Nelson	Peter Olsen S. S. Line		September 9		231
Toloa	United Fruit Co	September 9	September 9	13	225
Parismina	United Fruit Co		September 10		136
Cerigo	Hamburg-American Line		September 10		391
Santa Cruz	Grace Line	September 9	September 10	228	65
Santa Teresa	Grace Line	September 10	September 10	3	195
Buenaventura	Panama Railroad S. S. Line	September 10	September 11	274	91
Guatemala	Panama Mail S. S. Co	September 10	September 11	565	192
Baarn	Royal Netherlands S. S. Co	September 10	September 11	220	21
Indiana	French Line	September 10	September 11	99	(2)
Dakotan	Leyland Line	September 10	September 11	669	3
Uribe	United Fruit Co		September 12		387
Calamares	United Fruit Co	September 10	September 12	648	65½
Leon XIII	Spanish Line	September 10	September 12	109	520
Arana	Pacific Steam Navigation Co	September 11	September 11	126	106
Nitokris	Hamburg-American Line	September 11	September 12	35	138
Teutonia	Hamburg-American Line	September 11	September 12	(1)	523
Mantaro	Peruvian Line	September 11	September 15	2,261	(2)
Coppename	United Fruit Co	September 12	September 13	862	64
Guayaquil	Panama Railroad S. S. Line	September 12	September 13	475	503
Metapan	United Fruit Co	September 12	September 13	283	373
Santos Maru	Osaka Shosen Kaisha	September 12	September 13	63	(2)
Kako Maru	Nippon Yusen Kaisha	September 12	September 13	452	(2)
Legazpi	Spanish Line	September 12	September 14	204	52
Duchessa D'Aosta	Nav. Libera-Triestina	September 13	September 13	18	(2)
Virginia	Amer. Fruit & S. S. Corp	September 13	September 13	284	4
Saramacca	United Fruit Co	September 13	September 13	79	108
Essequibo	Pacific Steam Navigation Co	September 13	September 14	50	17
Honduras	French Line	September 13	September 14	126	409
Esparta	United Fruit Co	September 13	September 14	434	197
Utacarbon	Union Oil Co	September 13	September 14	10,571	(2)
Ancon	Panama Railroad S. S. Line	September 13		3,028	
Hans Leonhardt	Colombian Transport Co	September 14	September 15	81	(2)
Perene	Peruvian Line	September 14		215	
Narenta	Pacific Steam Navigation Co	September 14	September 15	54	377
Parthenia	Donaldson Line	September 14	September 15	(1)	413
Cavina	Elders & Fyffes, Ltd	September 15	September 15	(1)	½
Oropesa	Pacific Steam Navigation Co	September 15	September 15	(1)	48½
Cauca	National Navigation Co	September 15		185	
Jan Van Nassau	Royal Netherlands S. S. Co	September 15		440	
Heredia	United Fruit Co	September 15		543	
Virginia	American Fruit & S. S. Corp	September 15	September 15	(1)	452

[1] No cargo discharged. [2] No cargo laded.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 22, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
City of San Francisco [2]	7	15.21	16	6.10	16	13.13	17	00.10	Panaman	Panama Mail S. S. Co.	296.0	45.9	20.1	Cristobal, C. Z.	San Francisco, Cal.	General	2,503	3,848	2,606
West Montop	16	5.15	16	6.25	16	14.08	16	15.19	American	Calif. & East'n S. S. Co.	410.0	54.4	21.0	Philadelphia, Pa.	Seattle, Wash	General	4,757	6,484	4,675
Cali	14	9.00	16	7.35	16	14.55	16	19.50	German	North German Lloyd.	228.0	33.0	13.0	Pto. Colombia, Col.	Guayaquil, Ecuador	General	200	1,105	698
Canadian Winner	16	7.05	16	10.08	16	16.31	16	17.42	British	Can. Nat. Steamships	400.0	52.0	18.11	Montreal, Canada	Wellington, N. Z.	General	3,399	5,885	4,073
Almagro	16	2.45	16	11.15	16	19.10	16	20.28	British	Pacific Steam Nav. Co	303.4	43.0	17.6	New York, N. Y.	Callao, Peru	General	1,025	2,826	1,770
Perene	14	23.20	16	11.35	16	19.12	16	20.28	Peruvian	Peruvian Line	284.0	39.0	17.3	New York, N. Y.	Mollendo, Peru	General, coal	1,631	2,168	1,529
Rimutaka	16	19.50	17	6.05	17	13.28	17	20.54	British	N. Z. Shipping Co	457.0	58.0	27.6	London, England	Nelson, N. Z	General	4,741	9,201	6,961
Jason	16	3.40	17	6.12	17	14.33	17	15.50	Dutch	Royal Neth. S. S. Co.	347.0	48.3	22.5	Hamburg, Germany	Corral, Chile	General	3,670	4,321	3,120
City of New York [3]	15	19.20	17	6.45	17	17.10	18	15.05	American	Richard E. Byrd.	147.0	31.0	18.0	New York, N. Y.	Dunedin, N. Z	Ballast		534	194
Esparta	17	3.10	17	7.15	17	14.41	17	15.50	American	United Fruit Co	330.6	44.0	19.0	Port Limon, C. R.	San Francisco, Cal.	Cocoa, bananas	990	3,673	2,367
Lionel [2]	17	1.30	17	7.25	17	15.29	18	00.47	Norwegian	Alf. Mohn	375.0	52.0	26.7	Galveston, Texas	Adelaide, Australia	Sulphur	8,130	6,067	4,386
Silverbeech [2]	17	6.28	17	8.25	17	15.24	17	16.30	British	Kerr Line	425.0	58.3	21.8	New York, N. Y.	Manila, P. I.	General	5,272	8,226	6,039
Cragpool	17	10.55	17	12.50	17	19.20	18	6.25	British	R. Ropner	419.0	54.0	15.0	Newcastle-on-Tyne	Vancouver, B. C.	Ballast		6,170	4,505
Willwello	17	14.20	17	14.30	17	21.34	18	2.55	American	Williams S. S. Line	409.8	54.2	19.6	Norfolk, Va.	Seattle, Wash	General	4,367	6,821	4,927
Kazembe	17	20.15	18	6.14	18	13.36	18	15.05	British	Ellerman & Bucknall.	400.3	50.0	22.8	New York, N. Y.	Dunedin, N. Z	General, benzine	3,382	5,611	4,102
Australia	18	00.45	18	6.15	18	14.10	18	15.30	British	Amer. & Australian Line	482.0	62.7	25.6	New York, N. Y.	Fremantle, Aust'lia.	General	6,019	9,453	6,544
Mystic	18	3.30	18	7.10	18	14.29	18	16.05	American	Munson S. S. Line	400.7	54.2	22.6	Baltimore, Md.	Seattle, Wash	General	4,805	6,623	4,668
Niagara [4]	17	18.35	18	9.55	18	17.25	18	18.30	American	U. S. Navy	243.0	36.0	18.9	Cristobal, C. Z.	Balboa, C. Z.				
Mantaro	17	17.45	18	10.10	18	17.40	18	20.08	Peruvian	Peruvian Line	360.0	46.0	19.4	Covenas, Colombia	Guayaquil, Ecuador	General, cattle	267	4,838	2,959
Dixie Arrow [1]	18	12.14	18	12.30	18	18.54	18	20.08	American	Standard Oil Co	468.3	62.7	20.0	Marcus Hook, Pa.	Los Angeles, Calif.	Ballast		9,744	7,140
Canadian Runner	18	11.05	18	13.30	18	20.09	18	21.15	British	Can. Nat. Steamships	320.0	43.0	19.3	Montreal, Canada	Vancouver, B. C.	General	2,026	3,169	2,022
King Edwin [2]	18	17.25	18	19.35	19	10.02	19	15.56	British	Texas S. S. Co.	401.0	54.0	23.0	Port Arthur, Texas	Adelaide, Australia	(7)		7,193	6,474	4,686
Dio	18	19.15	18	20.35	19	12.43	19	14.00	American	Redwood Line, Inc.	386.0	52.2	18.0	Mobile, Ala.	San Francisco, Cal.	General	2,500	5,708	4,131
Doris [5]			18		18	15.15			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	(8)		9	7
No. 3918 [6]			18		18	15.15			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	Ballast		17	17
No. 4470 [6]			18		18	15.15			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	Ballast		15	15
No. 4288 [6]			18		18	15.15			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	Ballast		15	15
Port Darwin	18	19.03	19	6.15	19	14.49	19	15.55	British	Com'lth & Dom. Line	480.0	60.5	28.6	Glasgow-England	Dunedin, N. Z	General	5,600	10,468	7,916
Chetopa	18	21.40	19	6.22	19	15.22	19	18.05	American	Charles Nelson & Co.	324.0	46.2	19.0	Baltimore, Md.	Seattle, Wash	General	3,500	3,984	2,628
Italy Maru	18	23.10	19	7.25	19	16.10	19	17.35	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	27.0	Wilmington, N. C.	Yawata, Japan	(9)	7,617	5,914	4,388
Sildra [1] [2]	19	6.25	19	7.35	19	16.58	19	22.28	Norwegian	Anglo-Saxon Pet. Co	441.0	57.6	17.0	Falmouth, England	Los Angeles, Calif.	Ballast		7,583	5,071
San Eduardo [1]	19	7.15	19	8.40	19	16.37	20	00.13	British	Anglo-Mexican Pet. Co.	420.0	54.6	19.0	London, England	San Francisco, Cal.	Ballast		6,391	4,382
Gracefield	15	6.10	19	9.35	19	17.25	19	21.00	British	E. J. Sutton	390.0	53.6	14.6	Oran, Algeria	Vancouver, B. C.	Ballast		5,732	4,181
Amerikaland [2]	19	10.00	19	10.10	19	17.52	19	23.30	Swedish	Ore S. S. Corp	561.0	72.0	22.0	New York, N. Y.	Cruz Grande, Chile	Ballast		15,560	4,496

[1] Tanker. [2] Motor ship. [3] Auxiliary bark. [4] Survey ship. [5] Launch. [6] Barge. [7] Case oil and products. [8] Towing barges. [9] Scrap iron and rails.

Persephone [1] [2]	19	10.30	19	10.55	19	18.33	20	1.54	Danzig	Baltic-Amer. Pet. Co.	468.0	63.0	20.0	Rotterdam,Holland	Talara, Peru	Ballast		9,336	6,338
Ruahine	19	12.10	19	12.25	19	18.40	20	6.20	British	N. Z. Shipping Co	480.0	60.0	25.6	London, England	Lyttleton, N. Z.	General	4,280	11,443	8,417
Dalblair	19	10.15	19	13.58	19	20.38	19	23.30	British	United Steam Nav. Co.	406.5	54.0	24.0	Newcastle, England	Thio, N. Caledonia.	Coal and coke.	5,513	6,124	4,608
Gundulic	19	14.00	19	14.15	19	22.05	19	23.30	Yugoslav	Baburizza & Co	409.0	55.2	24.0	Blyth, England	Antofagasta, Chile.	General, coal.	6,156	6,584	4,570
F. J. Luckenbach	19	20.10	19	20.40	20	9.48	20	10.49	American	Luckenbach Line	446.0	56.0	24.0	Boston, Mass	Tacoma, Wash	General	6,026	8,508	6,179
Oroma	19	11.30	20	6.09	20	13.24	20	14.20	British	Pacific Steam Nav. Co.	511.0	62.0	25.6	Liverpool, England	Valparaiso, Chile.	General	4,088½	12,417	8,305
Orient City	19	21.30	20	6.20	20	13.43	20	15.45	British	Reardon Smith Line	396.5	53.5	13.0	W. Hartlepool, Eng.	Portland, Oreg.	Ballast		5,979	4,419
Nevadan	19	20.40	20	7.10	20	14.59	20	16.10	American	Amer.-Hawaiian Line	460.0	57.9	21.0	Boston, Mass	Portland, Oreg.	General	3,700	6,829	4,627
Ani	19	23.35	20	8.00	21	11.30	21	14.45	Belgian	Com. Int. de Com. Ar't	400.0	52.0	18.0	Barry Docks, Eng	Arica, Chile	Ballast		6,617	4,792
Tosca [2]	20	6.55	20	8.45	20	16.34	20	17.55	Norwegian	Winge & Co	375.0	51.3	15.0	Amst'dam, Holland	Los Angeles, Calif.	Ballast		5,688	3,930
King Robert	20	7.35	20	8.30	20	15.42	20	16.55	British	Dodd, Thomson & Co.	400.0	53.0	13.11	S. Shields, England	Vancouver, B. C.	Ballast		6,052	4,212
Santa Luisa	20	9.10	20	12.45	20	18.53	20	20.15	American	Grace Line	360.0	51.6	23 8	New York, N. Y.	Talcahuano, Chile	General	2,560	5,710	4,023
City of Adelaide	20	8.05	20	13.37	20	22.06	20	23.41	British	Hull Line, Ltd	443.0	57.4	27.8	Sydney, C. B.	Shanghai, China	General	7,696	8,547	6,646
Sugillenco	20	17.50	20	20.04	21	10.36	21	11.40	American	Transmarine Lines.	324.0	46.0	22.0	Mobile, Ala.	Seattle, Wash	General	3,258	3,984	2,612
Gen. Wm. M. Graham [10]			20	8.05	20	14.59			American	U. S. Army	156.0	32.0		Cristobal, C. Z	Balboa, C. Z.				
La Marseillaise	20	1.40	21	6.10	21	13.15	21	14.15	French	French Line	429.0	58.0	19.1	Havre, France	Vancouver, B. C.	General	4,063	8,079	5,580
Bantu	20	20.45	21	6.10	21	14.07	21	15.20	American	Norton, Lilly & Co	360.0	47.0	25.0	Baltimore, Md.	Tacoma, Wash.	General	4,852	4,607	3,032
President Adams	21	5.10	21	7.15	21	13.36	21	21.28	American	Dollar Line	502.1	62.2	26.0	Boston, Mass	Around the world	General	4,078	12,057	8,457
Vancolite [1] [2]	21	1.25	21	7.33	21	15.09	21	20.25	British	Imperial Oil Co	510.2	68.2	23.0	Montreal, Canada	Talara, Peru	Ballast		11,573	8,008
Pilar de Larrinaga	21	8.35	21	8.45	21	15.46	21	19.57	British	Larrinaga S. S. Co	445.0	58.0	19.6	N. Shields, Eng.	Astoria, Wash.	Ballast		7,643	5,562
Canadian Ex-Explorer	21	5.35	21	10.39	21	17.25	21	19.00	British	Can. Nat. Steamships	400.0	52.0	19.3	Montreal, Canada	Brisbane, Australia	General	2,305	5,853	4,058
Emmanuel Stavroudis	21	12.20	21	12.45	21	19.20	22	00.22	Greek	Stavroudis S. S. Co	398.5	48.5	15.5	Chania, Greece	Arica, Chile	Ballast		5,472	3,753
Wiegand	19	10.25	21	13.05	21	20.24	21	23.05	German	Roland Line	393.4	54.0	22.6	Hamburg,Germany	San Antonio, Chile.	General	3,283	6,573	4,629
Harry Luckenbach	21	18.08	21	19.10	22	9.06	22	10.00	American	Luckenbach Line	448.9	60.2	22.0	Boston, Mass	Seattle, Wash	General	3,436	9,262	6,853
Camden [1]	22	2.10	22	6.20	22	13.06	22	14.15	American	United Fruit Co	419.5	56.5	20.0	Tela, Honduras.	Los Angeles, Calif.	Ballast		6,977	4,959
Floreana [11]	7	17.15	22	6.05	22	14.34	22	16.00	Colombian	Colombian Transp. Co	150.0	27.2	8.0	Cristobal, C. Z.	Buenaventura, Col.	General	255	410	307
Maltran	22	2.45	22	6.25	22	14.30	22	15.40	American	Mallory Transport Co.	333.8	48.0	22.6	Norfolk, Va.	Sta. Rosalia, Mex.	Coal	4,385	4,171	2,827
Lebore	22	4.05	22	7.18	22	15.30	22	16.35	American	Ore S. S. Corp	549.0	72.0	23.6	Baltimore, Md.	Cruz Grande, Chile	Ballast		14,325	4,635
Pacific Cedar	22	5.20	22	7.15	22	16.15	22	17.35	American	Dimon S. S. Corp	399.4	54.7	18.0	New York, N. Y.	Seattle, Wash.	General	4,432	6,138	4,354
St. Mihiel [12]	22	7.00	22	8.25	22	15.13			American	U. S. Army	436.9	58.0	23.6	New York, N. Y.	Balboa, C. Z.	Army supplies.	200		
Wearpool	22	6.20	22	8.30	22	17.00	22	18.28	British	Sir. R. Ropner	390.0	55.0	22.8	Antwerp, Belgium	Seattle, Wash	General	6,500	5,920	4,435
Delaware Sun [3]	22	8.15	22	9.40	22	17.16	22	18.28	American	Sun Oil Co	480.0	66.0	20.6	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		9,402	6,586
Pecten [1] [2]	22	8.55	22	10.10	22	17.39	22	21.55	British	Anglo-Saxon Pet. Co	420.0	60.0	23.6	Tyne, England	Los Angeles, Calif.	Ballast		7,957	4,984
Impero	22	8.22	22	11.05	22	18.00	22	20.05	Italian	Soc.An.Com.Italo Cil'a.	442.0	52.6	20.6	Oran, Algeria	Iquique, Chile	Ballast		7,004	4,849
Kuma Maru	22	6.35	22	11.14	22	18.46			Japanese	Nippon Yusen Kaisha.	405.0	53.0	26.5	New York, N. Y.	Kobe, Japan	General	6,569	7,025	5,055
Orazio [2]	21	6.46	22	12.47	22	19.20	23	2.42	Italian	Nav. Gen. Italiana.	506.0	61.8	24.0	Genoa, Italy	Valparaiso, Chile.	General	1,017	12,977	9,373
Acajutla	19	14.07	22	13.05	22	20.28	22	21.55	British	Pacific Steam Nav. Co.	215.7	33.5	17.3	Cristobal, C. Z.	Champerico, Guat	General	1,144	1,273	706
Manizales	17	19.45	22	14.10	22	21.10	22	23.20	German	North German Lloyd.	216.0	32.0	15.0	Cristobal, C. Z.	Guayaquil,Ecuador	General	300	1,132	741
Durazzo	17	20.00	22	14.13	22	21.45	22	22.55	German	Hamburg-AmericanLine	226.5	34.0	14.8	Cristobal, C. Z.	Guayaquil,Ecuador	General	557	1,633	1,041
Durazzo			22	14.13	22	21.45	22	22.55	German	Hamburg-AmericanLine	226.5	34.0	14.8	Cristobal, C. Z.	Balboa, C. Z.	([14])			
Sciota [13]			22	9.20	22	16.57			American	U. S. Navy	149.3	30.0		Cristobal, C. Z.	Balboa, C. Z.				
E.T. Bedford [1] [2]	22	16.55	22	17.20	23	9.19	23	10.44	American	Standard Shipping Co.	499.0	68.0	22.0	New York, N. Y.	Talara, Peru	Ballast		10,994	7,893

[1] Tanker. [10] Mine planter. [11] Motor schooner. [12] Transport. [13] Tug. [14] Towing barge.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Paul Shoup [1]	15	19.10	16	6.09	16	13.30	16	13.30	American	Associated Oil Co.	424.4	58 2	26 5	San Francisco, Cal.	Philadelphia, Pa.	Gasoline	8,747	7,333	5,182
Helen Olmsted [1]	15	22.10	16	7.12	16	15.05	16	15.05	American	The Texas Co	425 8	57 0	26 6	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,000	7,484	5,216
Noorderdijk	15	21.50	16	8.46	16	16.45	16	21.30	Dutch	Holland-American Line	470.0	58 0	29 0	Vancouver, B. C.	Antwerp, Belgium	General	9,988	8,888	6,612
Canadian Seigneur	15	23.48	16	9.27	16	17.00	16	20.15	British	Can. Nat. Steamships	400 6	52 3	23 6	Vancouver, B. C.	Montreal, Canada	Lumber, general.	6,064	5,983	4,183
Sudawsonco	16	1.20	16	10.30	16	17.38	16	17.38	American	Transmarine Lines	324 0	46 2	23 1	Tacoma, Wash	New York, N. Y.	Lumber	4,000	3,984	2,628
Portland [14]	16	10.20	16	11.38	16	17.57	16	23.30	German	Hamburg-American Line	462 0	61 2	26 9	Los Angeles, Calif	Hamburg, Germany	General	7,052	9,139	6,666
Kellerwald	16	3.00	16	13.05	16	20.40	16	22.00	German	Hamburg-American Line	415 8	53 0	26 3	Corral, Chile	Hamburg, Germany	Nitrate, general	8,028	6,545	4,483
Circinus	16	19.15	17	7.17	17	15.05	17	15.05	American	Planet Line	410 0	54 2	23 6	Seattle, Wash	Boston, Mass	Lumber	6,720	6,585	4,791
Sommerstad [1] [14]	16	21.40	17	7.25	17	16.25	17	16.25	Norwegian	A. F. Klaveness	381 0	55 2	26 3	Los Angeles, Calif	Land's End Eng. [17]	Gasoline	7,771	5,994	3,876
Ebro	17	1.00	17	8.12	17	16.10	17	20.15	British	Pacific Steam Nav. Co	450.3	56 9	25 0	Talcahuano, Chile	New York, N. Y.	General	3,037	9,291	6,301
Berengar	17	3.00	17	8.24	17	17.55	17	21.18	German	North German Lloyd.	381 0	55 2	25 6	Iquique, Chile.	Hamburg, Germany	General	7,128	6,520	4,596
Atrato [14]	16	22.00	17	8.00	17	16.07			Colombian	Colombian Transp. Co	92 0	23 0	7 0	Buenaventura, Col.	Cristobal, C. Z	General	69	160	92
Point Montara	17	3.30	17	9.46	17	18.22	17	18.22	American	Swayne & Hoyt	324 0	46 2	23 0	Vancouver, B. C.	New Orleans, La.	Lumber, general.	3,807	2,984	2,612
Herman Falk [1] [14]	17	5.30	17	9.54	17	18.50	17	20.30	American	Oil Transport Co	431 0	59 2	26 3	Talara, Peru	Vallo, Norway	Crude oil	9,423	7,862	5,049
Niagra [15]	12	16.10	17	10.07	17	18.35	18	9.55	American	U. S. Navy	243 0	36 3	18 9	Balboa, C. Z	Cristobal, C. Z				
Manizales	17	8.30	17	10.17	17	19.45	22	14.10	German	Roland Line	216 6	33 0	12 6	Guayaquil, Ecuador	Cristobal, C. Z	General	513	1,133	741
Durazzo	17	9.40	17	10.33	17	20.00	22	14.13	German	Hamburg-American Line	226 9	34 5	13 0	Guayaquil, Ecuador	Cristobal, C. Z	General	389	1,633	1,041
Astoria [14]	17	14.25	18	6.19	18	13.30	18	13.30	Danish	Canadian Transp. Co	379 6	53 3	25 5	Vancouver, B. C.	Hull, England	([18])	7,025		
Nitro	17	19.45	18	6.45	18	14.45	18	17.05	Italian	Soc. Annon Com. Italia	406 8	48 8	26 6	Iquique, Chile.	Gibraltar [17]	Nitrates	7,150	5,742	4,180
Chief Skidegate	18	5.30	18	7.20	18	15.35	18	20.05	British	Can.-Amer. Steamships	483.6	56.0	30 6	Vancouver, B. C.	Rotterdam, Holland	General	10,487	10,011	7,278
Walter A. Luckenbach	17	21.05	18	7.33	18	16.30	18	16.30	American	Luckenbach Line	446.5	56 1	29 0	Portland, Oreg	Boston, Mass	General	8,900	8,785	6,567
Ingola	18	6.00	18	8.04	18	17.05	18	17.05	British	McClay & McIntyre	352 0	50.0	22 9	Caleta Colosa, Chile	Jacksonville, Fla.	Nitrates	6,000	4,340	3,202
Atlas [1]	17	21.15	18	8.35	18	17.50	18	17.50	American	Standard Transp. Co.	430 0	58 2	26 3	Los Angeles, Calif	New York, N. Y.	([19])	10,408	7,348	5,164
Greylock	18	8.15	18	9.28	18	18.13	18	18.13	American	Seas Shipping Co	430 7	54 3	27 6	Englewood, B. C.	New York, N. Y.	Lumber	7,350	7,946	5,698
Montanan	18	9.30	18	10.10	18	18.50	18	18.50	American	Amer.-Hawaiian Line	408.6	53 9	28 1	Portland, Oreg	Boston, Mass	General	7,105	6,756	4,775
Hamburg Maru	17	11.30	18	10.19	18	19.45	19	10 15	Japanese	Osaka Shosen Kaisha	400 0	54 5	18 0	Hongkong, China.	Boston, Mass	([20])	3,605		
Oranjestad [1] [16]	11	19.23	18	10.50	18	19.30	18	19 30	British	Lago Shipping Co.	305.7	50 2	10 6	Balboa, C. Z	Aruba, D. W. I.	Ballast			
Pacific Pioneer [14]	18	10.00	18	10.52	18	20.00	18	20 00	British	Furness, Withy & Co.	435 9	60 5	27 3	Vancouver, B. C.	Glasgow, Scotland	General	8,511	9,630	6,945
Port Huron [14]	18	2 23	18	13.45	18	20.55	19	15 20	British	Com'lth & Dom. Line	477 0	63 3	24 5	Auckland, N. Z.	London, England	General	5,246	10,720	7,692
France Maru	18	16 00	18	16.48	19	11.50	19	16.55	Japanese	Kokusai Kisen Kaisha	385 0	51.0	27 6	Portland, Oreg	Falmouth, Eng. [17]	Wheat	7,846	6,209	4,658
Chilore	18	20 30	19	6.35	19	16 20	19	16 20	American	Ore S. S. Corp	549 1	72 2	35 0	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	14,538	9,348
Acajutla	18	17.20	19	6.40	19	14.07	22	13 05	British	Pacific Steam Nav. Co	215 7	33.5	16.1	Champerico, Guat	Cristobal, C. Z	([21])	837	1,273	706
Georgian	19	00.10	19	7.21	19	17.18	19	17.18	American	Amer.-Hawaiian Line	386.8	52 2	21.1	Portland, Oreg.	Baltimore, Md	Lumber, general	4,437	5,719	4,023
Edwin Christenson	19	3.00	19	8.27	19	18.20	19	18.20	American	Arrow Line	410.0	54 2	22.8	Portland, Oreg.	New York, N. Y.	Lumber	6,500	6,603	4,932
Saint Louis	19	4.30	19	8.46	19	19.10	20	15.10	French	French Line	397.9	50 3	25.0	Valparaiso, Chile	La Havre, France	([22])	7,447	5,857	4,166

[1] Tanker. [14] Motor ship. [15] Survey ship. [16] For drydocking only. [17] For orders. [18] Lumber, wheat, and general. [19] Kerosene distillate. [20] Rice, tea, and general.
[21] Coffee, silver, and general. [22] Coffee, sugar, and nitrates.

Sebara	19	5.40	19	9.19	19	19.20	19	22.25	German	Hamburg-AmericanLine	398.7	51.9	26.8	Valparaiso, Chile	Hamburg,Germany	Nitrates, ore	7,062	6,069	4,279
Herman Frasch	19	8.30	19	10.20	19	19.45	19	19.45	American	Union Sulphur Co	356.0	51.6	27.0	Seattle, Wash	New York, N. Y.	Lumber	5,300	5,349	2,951
West Keats	19	9.30	19	10.39	19	20.55	19	20.55	American	Calif. & East'n S. S. Co.	410.5	51.3	26.0	Olympia, Wash	New York, N. Y.	Lumber	5,909	6,572	4,900
Zrinski	19	12.30	19	13.50	19	21.55	19	21.55	Yugoslav	Baburizza & Co	399.6	53.0	26.6	Antofagasta, Chile	Alexandria, Egypt	Nitrates	4,873	6,207	4,536
Petricola [1]	19	15.25	20	6.03	20	13.40	20	18.20	British	Anglo-Saxon Pet. Co	412.0	53.3	23.6	San Francisco, Cal.	Land's End Eng. [17]	Gasoline	7,691	6,319	4,373
Hesperes	19	18.16	20	6.59	20	15.10	20	17.00	Norwegian	Bruusgaard Line	389.8	54.1	25.0	Vancouver, B. C.	Liverpool, England	Lumber, general	6,100	5,693	4,230
Pacific Fir	20	00.05	20	8.06	20	17.05	20	17.05	American	Dimon S. S. Corp	410.5	54.0	24.8	Seattle, Wash	New York, N. Y.	Lumber	8,390	6,622	4,882
La Perla	20	4.00	20	8.42	20	14.07	21	16.33	American	United Fruit Co	325.2	48.1	20.3	San Francisco, Cal.	Port Limon, C. R.	General	889	4,033	2,261
Willsolo	20	6.00	20	9.15	20	17.30	20	17.30	American	Williams Line	435.0	57.0	26.9	Seattle, Wash	New York, N. Y.	Lumber, general	8,015	7,983	5,882
Stigstad [1 14]	20	11.55	20	12.39	20	17.55	20	19.55	Norwegian	A. F. Klaveness	386.3	55.7	26.0	Los Angeles, Calif.	Rouen, France	Gasoline	7,599	6,221	4,189
Norwich City	20	22.30	21	6.27	21	14.10	21	16.20	British	Canadian Transp. Co	397.0	53.5	24.7	Vancouver, B. C.	Three Rivers, Can	Lumber	6,300	6,051	4,514
Sciota [23]			21	6.35	21	14.00			American	U. S. Navy	155.0	30.0		Balboa, C. Z.	Cristobal, C. Z.				
Chertsey	21	00.52	21	7.18	21	16.40	21	20.40	British	Watts, Watts & Co	355.0	45.0	23.0	Saigon, China	Habana, Cuba	Rice in bags	5,210	4,008	2,948
Pennsylvanian	21	2.15	21	7.59	21	16.35	21	16.35	American	Amer.-Hawaiian Line	407.7	53.7	27.6	Seattle, Wash	Boston, Mass	General	8,293	7,107	5,041
Andromede	21	9.55	21	10.36	21	18.50	22	00.10	French	Messageries Maritimes	450.3	56.9	21.0	Noumea, N. Caled	Dunkirk, France	General	3,187	7,984	5,482
Orinoco	21	12.10	21	12.58	21	20.35	21	20.35	American	Quaker Line	376.0	52.3	24.6	Aberdeen, Wash	New York, N. Y.	Lumber, sugar	5,880	5,455	3,902
Yomachichi [14]	21	14.25	22	6.39	22	14.35	22	14.35	American	Roosevelt S.S. Co.,S.B.	401.9	54.2	26.0	Iloilo, P. I	New York, N. Y.	General	6,387	6,996	5,042
Lippe	21	18.45	22	6.59	22	17.32	23	1.40	German	North German Lloyd	495.0	60.1	27.1	Vancouver, B. C.	Hamburg,Germany	[21]	9,930	8,734	5,995
Tacoma [14]	22	1.30	22	7.17	22	17.47	22	17.47	Danish	Canadian Transp. Co	380.0	53.3	25.0	Victoria, B. C.	New York, N. Y.	Lumber	6,594	6,287	4,559
Padilla	22	2.15	22	8.12	22	18.20	23	11.40	Colombian	Colombian S. S. Co	247.2	43.5	13.6	Buenaventura, Col.	Pto. Colombia, Col.	General	233 3/4	2,206	1,506
Sagadahoc	22	5.30	22	8.37	22	18.50	22	18.50	American	Argonaut S. S. Line	420.5	54.2	27.0	Tacoma, Wash	New York, N. Y.	Lumber, shingles	7,071	7,341	5,342
Garfield	22	9.55	22	10.40	22	18.50	22	20.45	American	N. O. & S. A. S. S. Co.	299.4	45.0	22.0	Corral, Chile	New Orleans, La.	Nitrates	3,654	3,256	2,010
Tatsuno Maru	22	8.50	22	12.51	22	19.50	22	23.59	Japanese	Nippon Yusen Kaisha	445.0	55.0	25.4	Manila, P. I.	Boston, Mass	General	9,544	8,015	5,716

[1] Tanker. [23] Auxiliary fleet tug. [24] Wheat, lumber, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
September 16	Calamares	United Fruit Co	Port Limon, Costa Rica.
September 17	Pastores	United Fruit Co	New York via Habana.
September 18	Antillian	Leyland Line	Liverpool via wayports.
September 19	Suriname	United Fruit Co	New Orleans, La.
September 19	Puerto Rico	French Line	St. Nazaire via wayports.
September 19	Van Rensselaer	Royal Netherlands S. S. Co	Amsterdam via wayports.
September 19	Linda S. [25]	Surgeon Brothers	Colon, R. P.
September 19	Resolute [26]	D. L. Lynton	Colon, R. P.
September 20	Favorita	Amer. Fruit & S. S. Co	New Orleans, La.
September 20	Coppename	United Fruit Co	Port Limon, Costa Rica.
September 20	Sixaola	United Fruit Co	New York via Kingston.
September 21	Manaqui	United Fruit Co	New York via wayports.
September 21	Van Rensselaer	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
September 22	Favorita	American Fruit & S. S. Co	San Blas, R. P.
September 22	Inapaquina [27]	United Fruit Co	Colon, R. P.
September 22	Anachucuna [27]	United Fruit Co	Colon, R. P.
September 22	Commodore Rollins	United Fruit Co	Perme, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
September 16	Calamares	United Fruit Co	New York via Habana.
September 16	Jan Van Nassau	Royal Netherlands S. S. Co	Corpus Christi, Texas.
September 17	Heredia	United Fruit Co	New Orleans via wayports.
September 17	Ancon	Panama R. R. S. S. Line	New York via Haiti.
September 19	Antillian	Leyland Line	N. Orleans and Pt. Limon.
September 19	Pastores	United Fruit Co	Port Limon, Costa Rica.
September 19	Van Rensselaer	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
September 19	Resolute [26]	D. L. Lynton	San Andres and Bluefields.
September 20	Suriname	United Fruit Co	Pto. Colombia and Bocas.
September 20	Linda S. [25]	Surgeon Brothers	Bluefields, Nicaragua.
September 20	Coppename	United Fruit Co	New Orleans, La.
September 20	Favorita	American Fruit & S. S. Co	San Blas, R. P.
September 21	Puerto Rico	French Line	Havre via wayports.
September 21	Sixaola	United Fruit Co	New York via wayports.
September 22	Favorita	American Fruit & S. S. Co	New Orleans, La.
September 22	Manaqui	United Fruit Co	New York via Kingston.
September 22	Commodore Rollins	United Fruit Co	Mobile, Ala.

[25] Motor schooner. [26] Schooner. [27] Motor boat. * Other than ships passing through the Canal.

(**Continued on next page, column 2.**)

Official Circular.

Appointment—Assistant to the Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 24, 1928.*

To all concerned—Lieut. Colonel Julian L. Schley, having reported September 23, 1928, is hereby assigned to duty until October 15, 1928, as Assistant to the Governor, and will perform the duties of Engineer of Maintenance.

H. BURGESS,
Acting Governor.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessels furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 107.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

Date.	Vessel.	Line.	From—
September 22..	Cartago	United Fruit Co	New Orleans via Havana.
September 22..	Grunewald	Hamburg-American Line	Hamburg, Germany.

* DEPARTURES.

Date.	Vessel.	Line.	For—
September 22..	Van Rensselaer	Royal Netherlands S. S. Co	Amsterdam, via wayports.
September 22..	Grunewald	Hamburg-American Line	Hamburg via wayports.
September 22..	Anachueuna [27]	United Fruit Co	Colon, R. P.
September 22..	Inapaquina [27]	United Fruit Co	Colon, R. P.

[27] Motor boat.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
September 15..	San Luis [28]	Chiriqui Land Co	Pto. Armuelles, R. P.
September 16..	Tejon	General Petroleum Co	Los Angeles, Calif.
September 17..	Craftsman [29]	M. J. Dady Contracting Co	Buenaventura, Colombia.
September 18..	El Panquiaco [30]	Panama Government	Pto. Armuelles, R. P.
September 18..	City of New York [31]	Richard E. Byrd	High seas.
September 19..	A. B. de O'Barrio [28]	Pacific Fruit Co	Bayano River, R. P.
September 19..	Dos Hermanos [28]	A. Valdez	Bayano River, R. P.
September 19..	Chiman [32]	Isthmian Land & Fruit Co	El Real, R. P.

Date.	Vessel.	Line.	For—
September 16..	San Luis [28]	Chiriqui Land Co	Pto. Armuelles, R. P.
September 18..	Tejon	General Petroleum Co	Los Angeles, Calif.
September 18..	Craftsman [29]	M. J. Dady Contracting Co	Buenaventura, Colombia.
September 19..	A. B. de O'Barrio [28]	Pacific Fruit Co	Bayano River, R. P.
September 19..	Dos Hermanos [28]	A. Valdez	Bayano River, R. P.
September 21..	El Panquiaco [30]	Panama Government	Pto. Armuelles, R. P.
September 21..	City of New York [31]	Richard E. Byrd	Dunedin, New Zealand.
September 21..	Chiman [32]	Isthmian Land & Fruit Co	El Real, R. P.

[28] Motor schooner. [29] Tug. [30] Revenue cutter. [31] Bark. [32] Motor ship. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., October 3, 1928. No. 9.

Canal Traffic During September.

During the month of September, 1928, 487 commercial vessels and 11 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,111,230.56, and on the launches, $88.89, or a total tolls collection of $2,111,319.45.

The daily average number of transits of seagoing vessels for the month was 16.23, and the daily average tolls collection, $70,374.35. The average amount of tolls paid by each of the commercial transits was $4,335.18, as compared with $4,180.74 for the month of August.

Traffic for September decreased rather sharply as compared with the previous month, when 526 commercial vessels transited and $2,199,069.31 were collected in tolls. As compared with September, 1927, traffic for the past month decreased by 53 transits and over $183,000 in tolls. September, 1928, was the second month since June, 1927, in which the number of transits have been fewer than 500.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first nine months of the current calendar year, with the daily averages of transits and tolls:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,370.57	17.48	71,271.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
Totals	4,671	19,432,050.24	17.05	70,919.89

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *September 26, 1928.*

No. 460.

The following was received by the Hydrographic Office through the Balboa radio:

SANTA ELENA LIGHT, ECUADOR.

"The S. S. *Buenaventura* reports that on the night of September 24, the Santa Elena Light in latitude 2° 11′ 23″ S. and longitude 81° 00′ 07″ W., was showing a steady fixed light instead of its described flashing character and visible the described distance. (Signed) DOUGHERTY."

NOTE.—See No. 450, dated September 17.

H. BURGESS,
Acting Governor.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, September 29, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Rio Azul	22	19 55	23	6 10	23	13 53	23	15 20	British	Thompson S. S. Co	363 0	53 2	15 0	Philadelphia, Pa.	Portland, Oreg	Ballast		5,014	3,454
Osiris [2]	23	1.30	23	6 25	23	13.03	23	15.50	German	Hamburg-American Line	376 0	51 0	20 6	Hamburg, Germany	Portland, Oreg	General	3,397	5,788	4,023
Point Reyes	23	6.05	23	7 15	23	14.46	23	15.50	American	Swayne & Hoyt	324 0	46 2	21 8	New Orleans, La.	Tacoma, Wash	Sulphur, general	3,042	3,984	2,617
Iowan	23	8 05	23	8 15	23	15.36	23	16 45	American	Amer.-Hawaiian Line	407 7	53 6	19.6	Boston, Mass.	Seattle, Wash	General	3,750	7,079	5,028
Hegira	23	9 25	23	9 40	23	17.30	23	20.30	American	Norton, Lilly & Co	440 0	56 0	29 0	Baltimore, Md	Everett, Wash.	Steel	10,242	8,353	6.113
Grootendijk	22	15 50	23	9 40	23	16.19	23	17.10	Dutch.	Holland-American Line	450.0	58 0	18 8	Antwerp, Belgium	Tacoma, Wash	General	2,022	8,730	5,860
Julia Luckenbach	23	10.20	23	11 18	23	17.46	23	18 50	American	Luckenbach Line	436.0	57 0	24 8	Houston, Texas.	Seattle, Wash	General	5,317	8,543	6,402
Trimountain [1]	23	11.55	23	12.23	23	19 35	23	23 50	American	B. L. Shipping Co	416.9	56 2	25 6	Amst'dam, Holland	San Francisco, Cal.	Creosote	9,015	6,728	4,734
El Oso [1]	23	9.50	23	13 25	23	20 25	23	22 30	British	C. T. Bowring & Co	440 0	57 6	20 8	New York, N. Y.	San Francisco, Cal.	Ballast		7,478	5,040
Oylerie [1]	23	14 38	23	14 45	23	21 16	24	2 53	British	British-Mex. Pet. Co	420 3	54 6	18 0	Glasgow-England	Los Angeles, Calif.	Ballast		6,397	4,358
Rhodopis	23	7 18	23	19 10	24	9.13	25	00.24	German	Hamburg-American Line	435 0	53 0	22 10	Hamburg, Germany	Valparaiso, Chile	General	3,206	7,525	5,154
Wentworth	23	15 38	23	19 50	24	10 04	24	11 22	British	R. S. Dalgliesh, Ltd.	400 0	52 3	16 0	Barry Docks, Eng	San Francisco, Cal.	Ballast		5,721	4,058
Millinocket	23	17 35	24	6 12	24	14 32	24	15 20	American	N. O. & S. A. S. S. Line	317 0	44 2	15 10	New Orleans, La.	Antofagasta, Chile.	(5)	1,629	3,545	2,562
La Perla	24	4 00	24	6 15	24	14.23	24	15 20	American	United Fruit Co	325 2	48 1	21 0	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	639¼	4,033	2,261
Atlantic	23	18 15	24	6 20	24	14 54	24	15.55	American	Argonaut S. S. Line	410 5	54 3	27 0	Norfolk, Va.	Tacoma, Wash	Steel, general	7,148	6,567	4,917
Mindoro [2]	24	6 10	24	7 20	24	15.52	24	17 40	British	Phoenix Navigation Co.	399 3	52 8	19 0	Cardenas, Cuba	Los Angeles, Calif	Sugar	4,000	6,117	4,423
Parana	24	9 48	24	10 00	24	17 02	25	6 36	British	Royal Mail S. P. Co	375 3	48 3	16 0	Liverpool, England	Seattle, Wash	Ballast		4,717	3,359
Tiberton	24	10.39	24	10 55	24	17 48	24	19 00	British	R. Chapman & Son	400 0	52 3	17 0	Pto. Ferraio, Italy	Vancouver, B. C.	Ballast		5,699	4,126
Steel Inventor	24	20 50	24	21 10	25	9.44	25	14.55	American	Isthmian S. S. Lines	424 0	56 0	26 0	Baltimore, Md	Surabaya, Java	General	8,106	7,611	5,450
Limon [1]			24		24	15 37			American	J. J. Eckert				Cristobal, C. Z.	Gatun, C. Z.	(6)		2	2
Lela [1]			24		24	15 37			American	J. J. Eckert				Cristobal, C. Z.	Gatun, C. Z.	Unknown		2	2
El Lobo [1]	25	9.35	25	9 45	25	15 49	25	16 55	British	Atlantic Refining Co	385 2	51 0	18 0	Philadelphia, Pa.	La Libertad, Ec'dor.	Ballast		4,851	3,326
Massmar	25	11.15	25	11 30	25	18 20	25	19 30	American	Calmar S. S. Co	385 0	51 0	25 0	Baltimore, Md	Seattle, Wash	Steel, general	7,406	6,242	4,471
Annie Johnson [2]	25	11 00	26	6 05	26	13 27	26	16 40	Swedish	Johnson Line	392 2	52 0	22 5	Stockholm, Sweden	Vancouver, B. C.	General	4,381	6,650	4,919
Loriga [2]	24	23 35	26	6 05	26	14 21	26	18 15	British	Pacific Steam Nav. Co	406 0	54 2	19 0	Hull, England	Corral, Chile	General	4,042½	7,331	5,091
Dreehtdijk [2]	25	10 50	26	7 20	26	15 10	26	16 10	Dutch.	Holland-American Line	485 0	62 0	20 0	Rotterdam, Holland	Vancouver, B. C.	General, bananas	3,432	10,793	7,619
Witram	26	4 45	26	7 20	26	15 56	26	18 29	German	North German Lloyd	449 0	58 0	25 0	Bremen, Germany	San Francisco, Cal.	General	4,811	7,820	5,661
American Star	26	4 55	26	8 30	26	16 16	26	17 30	American	Charles Nelson & Co	386 8	52 2	19 9	Baltimore, Md	Seattle, Wash	General	3,893¼	5,699	4,167
Alaskan	26	7.28	26	8 45	26	17 03	26	18 00	American	Amer.-Hawaiian Line	415.0	53 0	17 10	Boston, Mass	Tacoma, Wash	General	2,226	7,380	5,339
Aconcagua	26	4.10	26	11.05	26	17 39	26	18 29	Chilean.	South American Line	421.0	56 2	24.11	New York, N. Y.	Valparaiso, Chile	General	2,485	7,764	4,705
City of Birmingham	26	8 55	26	13 10	26	19 47	26	21 10	British	Ellerman & Bucknall	391.0	54 2	24 6	New York, N. Y.	Adelaide, Australia	General, case oil	4,418	6,706	5,017
Pacific Shipper [2]	24	15.03	26	14.20	26	20 58	27	2 16	British	Furness, Withy & Co	420 0	58 0	16 7	Glasgow-England	Vancouver, B. C.	General, bananas	1,273	7,892	5,858
Cape Comorin	26	14.20	26	14.30	26	21.50	26	23 28	British	Lyle Shipping Co	400.0	53.5	16 6	Methil, England	Vancouver, B. C.	Ballast		6,246	4,499
Larry Doheny [1]	26	15.15	27	6.15	27	12 48	27	14.00	American	Tidewater Oil Co	430.0	59 2	19 4	Fall River, Mass	Los Angeles, Calif	Ballast		7,494	5,181
Kendal Castle	26	15 30	27	6.22	27	14 02	27	15 15	British	James Chambers & Co	418 0	55 6	25.11	New York, N. Y.	Dairen, China	General	7,528	6,773	5,001
Trojanstar	26	20 30	27	7 20	27	14 36	27	15.55	British	Blue Star Line	469 0	59 0	24 0	River Tyne, Eng	Vancouver, B. C.	Ballast		10,405	7,401

[1] Tanker. [2] Motor ship. [3] Launch. [4] Lifeboat. [5] Lumber, iron, asphalt, and general. [6] Towing lifeboat *Lela*.

Canadian Challenger	26	20.50	27	7.17	27	15.27	27	16.35	British	Can. Nat. Steamships	400.0	52.0	20.0	Montreal, Canada	Brisbane, Australia	General	3,132	6,142	4,354
King City	26	21.10	27	8.20	27	16.17	27	17.50	British	Reardon Smith Line	400.0	54.3	13.0	Immingham, Eng.	Vancouver, B. C.	Ballast		6,993	5,397
Robert Luckenbach	26	21.20	27	8.50	27	16.43	27	17.50	American	Luckenbach Line	445.0	58.0	21.8	Boston, Mass.	Seattle, Wash.	General	4,509	8,695	6,375
Japan Arrow [1]	27	1.10	27	9.45	27	17.05	27	18.00	American	Standard Transp. Co.	468.3	62.7	20.0	Providence, R. I.	Los Angeles, Calif.	Ballast		10,084	7,426
Atlanta City	27	1.15	27	9.50	27	17.35	27	18.44	American	Norton, Lilly & Co.	425.0	56.0	25.0	Mobile, Ala.	Osaka, Japan	[8]	7,904	7,611	5,450
Elder Branch	27	4.50	27	11.00	27	18.08	27	19.10	British	F. & W. Ritson	380.0	49.0	21.0	N. Shields, Eng.	Corral, Chile	General	4,380	4,951	3,592
Sun [1 2]	27	5.30	27	11.00	27	18.39	27	20.00	American	Sun Oil Co.	480.6	66.0	20.2	Chester, Pa.	Los Angeles, Calif.	Ballast		9,620	6,424
C. A. Larsen [7]	27	7.05	27	11.55	27	19.02	27	20.00	Norwegian	Rasmussen & Konow.	527.0	66.6	23.1	Norfolk, Va.	Wellington, N. Z.	Byrd expedition	100	15,017	10,329
Willboro	27	8.05	27	12.20	27	19.42	27	21.19	American	Williams S. S. Line	414.0	55.0	23.6	Philadelphia, Pa.	Seattle, Wash.	General	7,910	7,717	5,763
Thomas P. Beal	27	14.18	27	14.25	27	21.30	28	1.35	American	Isthmian S. S. Lines	394.0	55.0	27.0	Baltimore, Md.	Vancouver, B. C.	Steel, general	7,906	7,047	5,100
Mincola	27	10.45	28	6.00	28	13.27	28	14.45	American	N. O. & S. A. S. S. Line	298.6	40.0	19.6	New Orleans, La.	Corral, Chile	General	1,787	2,835	1,805
Santa Veronica	27	17.35	28	6.20	28	13.33	28	15.20	American	U. S. Steel Products Co.	251.0	43.6	24.5	Baltimore, Md.	Honolulu, T. H.	[9]	3,057	2,823	1,740
San Teodoro [1]	27	20.05	28	7.30	28	14.18	28	15.20	British	Anglo-Mexican Pet. Co.	412.0	53.4	19.9	Ardrossan, England	Los Angeles, Calif.	Ballast		6,006	4,077
Bradburn	28	5.15	28	9.30	28	16.31	28	18.10	British	Sir. W. R. Smith & Sons	378.5	51.3	17.0	Cardiff, England	Portland, Oreg.	Ballast		5,297	3,909
Atlantic Sun [1]	28	21.05	28	21.10	29	9.36	29	10.36	American	Sun Oil Co.	429.2	59.2	18.0	Chester, Pa.	Los Angeles, Calif.	Ballast		7,568	5,283
Jamaica	23	15.35	29	6.20	29	13.48	29	15.08	British	Pacific Steam Nav. Co.	220.0	34.0	15.2	Cristobal, C. Z.	Champerico, Guat.	General	839	1,187	622
Baralt	26	20.22	29	6.05	29	13.45	29	14.50	Dutch	Royal Nether. S. S. Co.	200.0	33.0	12.10	Cristobal, C. Z.	Buenaventura, Col.	General	172	1,183	742
Feltore	28	4.00	29	6.10	29	13.10	29	14.10	American	Ore S. S. Corp.	449.1	57.2	18.0	Norfolk, Va.	Cruz Grande, Chile	Ballast		7,808	5,139
Mongolia	29	6.15	29	7.20	29	14.44	29	23.50	American	Panama-Pacific Line	600.0	65.3	27.0	New York, N. Y.	San Francisco, Cal.	General	2,462	17,041	11,426
Utacarbon [1]	28	9.00	29	7.02	29	15.12	29	16.24	American	Union Oil Co.	435.0	56.0	18.8	Baytown, Texas	Los Angeles, Calif.	Ballast		7,482	5,209
Karamea [2]	28	23.25	29	9.10	29	15.50	30	1.12	British	Shaw, Savill & Albion.	483.0	64.0	26.0	Middlesboro, Eng.	Wellington, N. Z.	General	6,800		
Nebraskan	29	13.45	29	14.00	29	21.07	29	22.20	American	Amer.-Hawaiian Line	471.0	60.0	19.0	Boston, Mass.	Portland, Oreg.	General	3,940	9,032	6,655
Sir James Clark Ross [7]	29	16.00	29	17.25	30	9.00	30	13.55	Norwegian	Rasmussen & Konow.	470.2	58.0	25.0	Norfolk, Va.	Pt. Chalmers, N. Z.	Ballast		9,094	6,155
Alynbank [2]	29	18.10	29	18.20	30	11.53	30	12.55	British	Strachen Shipping Co.	420.0	53.4	26.6	Tampa, Fla.	Osaka, Japan	Phosphate, cot'n.	7,763	7,093	5,002

[1] Tanker. [7] Whaler. [8] Pig iron, cotton, and general. [9] Sulphate of ammonia, tinplate, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Colombia	22	17.00	23	6.17	23	13.22	24	1.30	American	Panama Mail S. S. Co.	380.0	48.7	21.0	San Francisco, Cal.	New York, N. Y.	General	2,505	6,015	4,281
Santa Cecelia	22	17.45	23	6.36	23	14.25	24	00.04	American	Grace Line	408.0	55.2	12.0	Callao, Peru	New York, N. Y.	[13]	677	6,672	4,905
Jamaica	22	20.15	23	7.19	23	15.35	29	6.20	British	Pacific Steam Nav. Co.	220.0	34.0	12.0	Champerico, Guat.	Cristobal, C. Z.	[14]	150	1,187	622
Cid	22	22.20	23	7.21	23	15.40	24	1.17	British	Pacific Steam Nav. Co.	264.0	41.2	13.0	Callao, Peru	New York, N. Y.	General	369	2,746	1,626
King William	22	19.50	23	8.33	23	17.48	23	19.25	British	Dodd, Thomson & Co.	400.7	54.8	22.9	Vancouver, B. C.	Capetown, So. Afr'a	Lumber	7,350	6,329	4,345
Chateau Thierry [10]	22	5.05	23	8.52	23	16.45	23	23.05	American	U. S. Army, Q. M. Corps.	448.0	58.0	21.5	San Francisco, Cal.	New York, N. Y.	Army supplies	134		
Canadolite [1 11]	23	2.10	23	9.27	23	18.15	23	18.15	British	Imperial Oil Co., Ltd.	510.0	68.2	30.7	Talara, Peru	Halifax, N. S.	[15]	16,000	11,556	7,658
San Leonardo [1]	23	4.30	23	9.51	23	19.15	24	1.50	British	Anglo-Mexican Pet. Co.	401.0	54.2	23.9	Los Angeles, Calif.	Lizard's Head, Eng.	Gasoline	7,298	5,962	3,650
W. L. Steed [1]	23	9.15	23	10.44	23	19.30	23	19.30	American	Huasteca Petroleum Co.	416.8	56.1	27.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,000	6,751	4,795
Lubrafol [1 11]	23	7.30	23	11.57	23	20.05	23	20.05	Belgian	Soc. Anonyme D'Arm't.	440.8	57.4	27.0	San Francisco, Cal.	Rotterdam, Holland	[16]	9,500	6,751	4,976
Durban, H.M.S.	23	6.00	23	12.56	23	20.30	23	20.30	British	British Navy	472.0	46.5	16.0	Santa Barbara, Cal.	High seas			(a)	5,000
S. C. T. Dodd [1]	23	12.14	23	13.18	23	21.30	23	21.30	American	Standard Oil Co., Calif.	425.0	57.2	27.6	San Francisco, Cal.	Baltimore, Md.	Gasoline	9,664	7,481	4,975
Jugo Slavija	23	16.20	23	17.02	24	11.15	24	11.15	Yugoslav	Baburizza & Co.	410.0	59.5	26.0	Iquique, Chile	Gibraltar	Nitrates	7,800	5,686	4,188
Crowl [12]			23		23				American	U. S. Army				Balboa, C. Z.	Miraflores, C. Z.				
Steelore	24	3.30	24	6.06	24	15.15	24	15.15	American	Ore S. S. Corp.	550.3	72.2	34.6	Cruz Grande, Chile	New York, N. Y.	Iron ore	20,000	15,551	4,297
Cubore [11]	23	23.00	24	7.21	24	15.25	24	15.25	American	Calmar S. S. Corp.	450.6	57.2	29.0	Gray'sH'bor., Wash.	New York, N. Y.	Lumber	9,500		
Santa Elisa	24	4.55	24	8.33	24	16.26	24	20.20	American	Grace Line	360.2	51.7	24.6	Talcahuano, Chile	New York, N. Y.	[17]	3,831	5,957	4,325

[1] Tanker. [10] U. S. Army transport. [12] Motor ship. [23] Launch. [11] Coffee, cocoa, and balsam. [14] Wood, coffee, and hides. [15] Crude and fuel oil. [16] Gas and lubricating oil. [17] Nitrates, copper, and general. *a* Displacement.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Ballena	24	9.45	24	10.26	24	17.45	24	20.50	British	Pacific Steam Nav. Co	400.1	52.3	25.0	Talcahuano, Chile	Liverpool, England	(23)	7,288	5,816	4,113
Axel Johnson [18]	24	12.30	25	6.19	25	13.20	26	9.59	Swedish	Johnson Line	392.0	52.6	25.0	Seattle, Wash	Stockholm, Sweden	(24)	5,651	6,642	4,860
Columbian	24	22.00	25	6.45	25	14.35	25	14.35	American	Amer.-Hawaiian Line	404.6	53.9	28.6	Portland, Oreg	Boston, Mass	Lumber, general.	5,671	6,761	4,450
California	24	11.35	25	7.12	25	15.30	25	15.55	American	Panama-Pacific Line	574.4	80.3	30.0	San Francisco, Cal.	New York, N. Y.	General	8,200	24,506	17,565
Lena Luckenbach	25	5.35	25	7.58	25	15.42	25	20.00	American	Luckenbach Line	425.0	53.8	27.9	Portland, Oreg	Mobile, Ala	General	8,363	7,217	5,295
Paul Luckenbach	25	7.30	25	9.09	25	16.20	25	16.20	American	Luckenbach Line	471.1	59.2	26.6	Portland, Oreg	Boston, Mass	Lumber, general.	8,352	9,027	6,539
West Cape	24	18.20	25	9.00	25	17.00	25	17.00	American	Munson McCor'k Line	409.5	54.2	24.0	Tacoma, Wash	Baltimore, Md	Lumber, general.	8,500	6,566	4,960
Cutter [19]			25		25				American	U. S. Army				Balboa, C. Z.	Gatun Lake, C. Z.				
Virgilio [19]	25	17.20	26	6.16	26	13.40	28	1.10	Italian	Nav. Gen. Italiana	502.7	61.8	26.0	Valparaiso, Chile	Genoa, Italy	General	4,612	12,941	9,329
Jane Maersk [1 18]	26	2.00	26	6.46	26	14.30	26	2.30	Danish	Anglo-Saxon Pet. Co	456.8	59.7	26.8	San Diego, Calif.	Land's End, Eng. [25]	Gasoline	10,800	8,102	5,623
Presidente Sarmiento [20]	23	9.45	26	7.42	26	16.15	28	10.00	Argentinian	Argentine Government	299.0	44.0	19.0	Puntarenas, C. R.	Pto. Barrios, Guat.			(a)	2,700
El Panquiaco [21]	25	6.36	26	7.40	26	15.38	26	15.38	Panaman	Panaman Government	125.6	23.5		Panama Bay, R. P.	Cristobal, C. Z.				
Northumberland	25	12.50	26	8.15	26	18.15	26	18.15	British	Federal Steam Nav. Co	530.0	63.0	23.0	Wellington, N. Z.	London, England	Frozen, general.	4,320	13,268	9,124
York City	26	4.00	26	8.51	26	19.15	26	21.20	British	Sir W. R. Smith & Sons.	411.8	55.0	28.6	Vancouver, B. C.	London, England	Wheat, lumber	9,179	7,038	5,166
Marsodak	26	6.15	26	9.16	26	19.25	26	21.20	American	Charles Nelson & Co	324.0	46.2	20.6	San Francisco, Cal.	Baltimore, Md	General	3,218	3,984	2,628
Ucayali	26	6.10	26	9.45	26	19.55	30	6.20	Peruvian	Peruvian Line	374.7	46.3	22.0	Callao, Peru	Covenas, Colombia	General	2,054	4,466	2,405
St. Mihiel [22]	22	15.13	26	10.18	26	18.15	27	11.05	American	U. S. Army, Q. M. Corps.	448.0	58.0	25.6	Balboa, C. Z.	New York, N. Y.				
Baralt	26	9.40	26	10.38	26	20.22	29	6.05	Dutch	Royal Neth. S. S. Co.	210.0	33.0	12.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	447	1,183	742
Hofuku Maru	26	9.40	26	11.03	26	22.00	27	1.10	Japanese	Kokusai Kisen Kaisha.	385.0	51.0	27.0	Portland, Oreg	Europe	Bulk wheat	7,801	6,212	4,710
Buffalo Bridge	26	10.45	26	11.51	26	20.25	26	20.25	American	Charles Nelson & Co	324.0	46.2	25.0	San Francisco, Cal.	Savannah, Ga.	Lumber, general.	4,000	3,985	2,630
Pat Doheny [1]	26	12.30	26	13.30	26	22.30	27	6.15	American	Richfield Oil Co	430.0	59.0	26.0	Los Angeles, Calif.	Warners, N. J.	Gasoline	9,392	7,978	5,840
Point Breeze [1]	27	1.00	27	6.04	27	15.30	27	15.50	American	Atlantic Refining Co	364.0	51.0	22.6	Los Angeles, Calif.	New York, N. Y.	(26)	5,826	5,113	3,571
Logician	20	16.25	27	7.00	27	16.55	27	22.55	British	T. & J. Harrison	420.3	54.5	25.3	Vancouver, B. C.	Liverpool, England	General	7,507	6,652	4,688
Maliko	26	20.45	27	7.15	27	17.40	27	17.40	American	Matson Navigation Co	416.0	57.3	29.0	San Francisco, Cal.	Boston, Mass	General	7,160	7,072	4,944
Salvador	26	18.20	27	7.30	27	15.55			British	Pacific Steam Nav. Co	215.0	33.5	13.8	Champerico, Guat	Cristobal, C. Z.	(27)	319	1,270	735
Apple Branch	26	23.00	27	7.59	27	18.10	27	18.10	British	F. & W. Ritson	370.0	51.7	24.6	Valparaiso, Chile	Liverpool, England	Nitrates, general.	5,976	5,112	3,511
Robin Adair	27	4.45	27	8.39	27	18.45	27	19.08	American	Seas Shipping Co	424.8	55.2	26.6	Portland, Oreg	Boston, Mass	(28)	8,329	7,470	5,529
Canadian Cruiser	27	5.00	27	9.06	27	19.20	28	1.53	British	Can. Nat. Steamships	430.0	56.0	16.0	Melbourne, Aust'a.	Montreal, Canada	General	1,014	7,680	5,518
San Jose	27	9.20	27	10.08	27	19.55	29	2.30	American	United Fruit Co	330.0	44.6	19.0	San Francisco, Cal.	Port Limon, C. R.	General	735	3,670	2,353
Vega	27	1.21	27	10.53	27	21.00	29	16.37	American	U. S. Navy	390.0	54.3	20.0	Bremerton, Wash.	Norfolk, Va	Naval stores	2,769		
Tongking [18]	27	11.05	27	11.40	27	21.25	28	1.05	Danish	East Asiatic Co	410.0	55.2	29.0	Vancouver, B. C.	Copenhagen, Den.	General	9,321	9,068	6,211
Finn [18]	27	9.30	27	13.24	27	22.35	28	13.55	Swedish	Colombian S. S. Co	273.7	41.0	13.6	Buenaventura, Col.	New York, N. Y.	Coffee	385	2,472	1,513
Van	27	13.20	27	14.16	28	00.15	28	3.22	Belgian	Cie. Inter. de Com. D'Arm	460.0	58.2	28.6	Tocopilla, Chile	Algiers, Algeria	Nitrates	9,950	9,068	6,211
Orbita	27	21.30	28	6.17	28	14.05	28	20.00	British	Pacific Steam Nav. Co	550.3	67.3	30.2	Talcahuano, Chile	Liverpool, England	(29)	6,805	16,844	11,731

[1] Tanker. [18] Motor ship. [19] Launch. [20] Training ship. [21] Revenue cutter. [22] U. S. Army transport. [23] Copper, nitrates, and general. [24] Grain, fruit, and general. [25] For orders.
[26] Gasoline and lubricating oil. [27] Coffee, hides, and general. [28] Lumber and magnasite. [29] Copper, ore, and cotton. *a* Displacement.

Persephone [1] [18]	27	20.15	28	6.33	28	14.35	28	14.35	Danzig	Baltic-Amer. Pet. Co.	489.0	63.1	27.1	Talara, Peru	Rotterdam,Holland	Naphtha	11,448	9,336	6,338
K. R. Kingsbury [1]	28	00.50	28	7 11	28	15.00	28	15.00	American	Standard Oil Co. of Cal.	440.0	58.2	28.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,700	9,038	5,938
Goodwood	28	7.15	28	8.12	28	16 10	28	17.50	British	Constantine S. S. Co.	401.2	55.0	23 0	Vancouver, B. C.	Rotterdam,Holland	Lumber, wheat.	7,965	6,150	4,623
Santore	28	9.40	28	10.36	28	18.50	29	18.50	American	Ore S. S. Corp.	449.1	57.2	28.2	Cruz Grande, Chile	Baltimore, Md.	Iron ore	11,000	7,808	5,139
Ruapehu	28	20 00	29	6 12	29	13.40	29	19.25	British	N. Z. Shipping Co.	457.0	58.0	19.9	Wellington, N. Z.	London, England	Frozen, general.	2,930	9,07[illegible]	6,798
Point Sur	29	1.55	29	6.51	29	14.47	29	14 47	American	Swayne & Hoyt	324.0	46.2	20.6	Vancouver, B. C.	New Orleans, La.	General	3,785	3,98[illegible]	2,612
Joseph Seep [1]	28	22.30	29	7.18	29	15.55	29	15.55	American	Standard Shipping Co.	429.3	59.2	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	10,613	7,82[illegible]	5,616
Rudby	28	23.15	29	8.07	29	16 20	29	16 20	British	Sir. R. Ropner & Co.	390.0	55.0	24.6	Portland, Oreg.	Naples, Italy	Wheat	7,733	5,88[illegible]	4,505
Glamorganshire	29	7.50	29	8.42	29	17 35	29	19.15	British	Royal Mail S. P. Co.	445.0	58.0	27.6	Vancouver, B. C.	Rotterdam,Holland	General	9,700	8,22[illegible]	5,982
Manhattan Island	29	6.20	29	9.49	29	18 00	29	19.30	American	Redwood Line, Inc.	386.8	52 2	24.0	San Francisco, Cal.	Mobile, Ala.	Lumber, general.	5,745	4,12	3,073
Schuylkill [1] [18]	28	19.39	29	10.02	29	18.40	29	18.40	British	Anglo-Amer.Oil Co.,Ltd.	476.0	63.8	27.4	Los Angeles, Calif.	Ellesmere, Port, Eng	Gasoline	12,074	9,19	6,390
Hanley	29	13 45	29	14.44	29	22.40	29	22 40	American	Hanley S. S. Co	440.0	56.0	27.6	Everett, Wash.	Baltimore, Md.	Lumber	9,658	8,31	6,005

[1] Tanker. All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
September 23...	Pastores	United Fruit Co	Port Limon, Costa Rica.
September 24...	William M. [30]	G. I. Bryan	Colon, R. P.
September 25...	Ulua	United Fruit Co	New York via Habana.
September 25..	Mayari	United Fruit Co	New York via wayports.
September 26..	Saramacca	United Fruit Co	New Orleans, La.
September 26...	Inapaquina [31]	United Fruit Co	Colon, R. P.
September 27...	Suriname	United Fruit Co	Port Limon, Costa Rica.
September 27...	Macabi	United Fruit Co	New York, N. Y.
September 27...	Virginia	Standard Fruit & S. S. Co	New Orleans, La.
September 27..	Bowden	United Fruit Co	Mobile, Ala.
September 27..	Cristobal	Panama Railroad S. S. Line	New York via Haiti.
September 27...	Zacapa	United Fruit Co	New York via Kingston.
September 27..	Galicia	Hamburg-American Line	Hamburg via wayports.
September 29...	Virginia	Standard Fruit & S. S. Co	San Blas, R. P.
September 29...	Bowden	United Fruit Co	Perme, R. P.
September 29...	Ariguani	Elders & Fyffes, Ltd	Avonmouth via wayports.
September 29...	Linda S. [32]	Surgeon Brothers	Colon, R. P.
September 29...	Dakotan	Leyland Line	Liverpool via wayports.
September 29...	Parismina	United Fruit Co	New Orleans via Habana.

* DEPARTURES.

Date.	Vessel.	Line.	For—
September 23..	Pastores	United Fruit Co	New York via Habana.
September 24..	William M. [30]	G. I. Bryan	Bluefields, Nicaragua.
September 24..	Cartago	United Fruit Co	New Orleans and wayports.
September 26..	Ulua	United Fruit Co	Port Limon, Costa Rica.
September 26..	Inapaquina [31]	United Fruit Co	Colon, R. P.
September 27..	Saramacca	United Fruit Co	Bocas del Toro, R. P.
September 27..	Suriname	United Fruit Co	New Orleans, La.
September 27..	Bowden	United Fruit Co	Perme, R. P.
September 28..	Mayari	United Fruit Co	Puerto, Colombia.
September 28..	Virginia	Standard Fruit & S. S. Co	San Blas, R. P.
September 28..	Zacapa	United Fruit Co	New York via wayports.
September 28..	Galicia	Hamburg-American Line	Port Limon, Costa Rica.
September 29..	Ariguani	Elders & Fyffes, Ltd	Avonmouth via Kingston.
September 29..	Macabi	United Fruit Co	New York via Kingston.
September 29..	Virginia	Standard Fruit & S. S. Co	New Orleans, La.
September 29..	Bowden	United Fruit Co	Mobile, Ala.
September 29..	Linda S. [32]	Surgeon Brothers	Bluefields via Pt. Limon.

[30] Schooner. [31] Motor boat. [32] Motor schooner.

PORT OF BALBOA.

September 23...	Martha [33]	Chr. Hannevig	Buenaventura, Colombia.	September 25..	Craftsman [34]	R. J. McArdle Contracting Co.	Buenaventura, Colombia.
September 24...	Craftsman [34]	R. J. McArdle Contracting Co.	Buenaventura, Colombia.	September 25..	A. B. de O'barrio [35]	Pacific Fruit Co	Bayano River, R. P.
September 25...	A. B. de O'barrio [35]	Pacific Fruit Co	Bayano River, R. P.	September 25..	Dos Hermanos [35]	A. Valdez	Bayano River, R. P.
September 25...	Dos Hermanos [35]	A. Valdez	Bayano River, R. P.	September 25..	San Luis [35]	Chiriqui Land Co	Pto. Armuelles, R. P.
September 25...	Chiman [33]	Isthmian Land & Fruit Co	El Real, R. P.	September 27..	Martha [33]	Chr. Hannevig	Buenaventura, Colombia.
September 25...	San Luis [35]	Chiriqui Land Co	Pto. Armuelles, R. P.	September 28..	Bessy [35]	Isthmian Land & Fruit Co	Garachine, R. P.
September 28..	Bessy [35]	Isthmian Land & Fruit Co	Panama, R. P.	September 29..	Cricamola [36]	Chiriqui Land Co	Pto. Armuelles, R. P.
September 28..	Cricamola [36]	Chiriqui Land Co	Pto. Armuelles, R. P.				

[33] Motor ship. [34] Tug. [35] Motor schooner. [36] Motor yacht. * Other than ships passing through the Canal.

Non-Tolls-Paying Traffic Through Panama Canal.

During the fiscal year ended June 30, 1928, 503 nontolls-paying vessels transited the Canal. This figure included 450 vessels of the United States Government, 10 of the Panaman Government, 6 of the Colombian Government, and 37 transiting to Balboa solely for repairs. The vessels of the United States Government were practically all of the Navy and Army, with a few belonging to other departments of the Government such as the Bureau of Fisheries, etc.

Vessels transiting without payment of tolls amounted to 7.2 per cent of the total transits for the year. Their net tonnage, plus one-third of the displacement tonnage of those not measured for net tonnage, which is considered a fair equivalent in terms of net tonnage, amounted to about 2.6 per cent of the total of the aggregate net tonnage. The cargo carried by these vessels, principally coal, ordnance, and other military and naval supplies, amounted to 253,672 tons, or about 1 per cent of the total cargo through the Canal for the year. If tolls had been charged on these vessels at commercial rates, the amount would have been approximately $937,776.31.

In the following tables are given the number of vessels, tonnage equivalent, tolls (which they would have paid if charged at commercial rates), and the amount of cargo carried, for each of the four classes of transits without tolls, and the aggregate, by fiscal years since the opening of the Canal:

Fiscal year.	No. of vessels.	Tonnage.		Equivalent tolls.	Tons of cargo.
		Displacement.	Panama Canal net.		
United States Government vessels:					
1915	16	.....	72,276	$78,667.66	48,895
1916	47	106,160	60,610	125,389.69	72,575
1917	103	168,603	161,320	247,866.70	150,230
1918	112	125,441	85,265	141,174.83	36,716
1919	179	120,427	97,064	164,306.32	98,349
1920	263	903,182	350,869	830,963.47	356,775
1921	425	1,038,206	404,606	936,699.21	427,494
1922	250	554,437	271,806	544,785.98	200,320
1923	401	944,794	394,171	852,420.19	212,314
1924	418	1,430,894	356,667	1,106,446.37	224,218
1925	378	746,924	310,594	722,674.06	211,401
1926	534	1,077,665	340,502	928,539.40	117,047
1927	563	1,502,116	470,485	1,275,849.81	228,722
1928	450	862,006	454,051	889,350.54	231,990
Totals	4,139	9,580,855	3,830,286	8,845,143.23	2,617,046
Panaman Government vessels:					
1915	1	.....	56	$40.32	.....
1916	.....	.....	.....	.....	.....
1917	2	.....	112	80.64	.....
1918	1	.....	56	40.32	.....
1919	2	.....	66	52.32	.....
1920	.....	.....	.....	.....	.....
1921	.....	.....	.....	.....	.....
1922	5	.....	120	86.40	.....
1923	.....	.....	.....	.....	.....
1924	.....	.....	.....	.....	.....
1925	2	.....	202	145.44	.....
1926	5	.....	409	294.48	.....
1927	11	.....	1,122	810.00	.....
1928	10	.....	550	406.20	.....
Totals	39	.....	2,693	1,956.12	.....
Colombian Government vessels:					
1922	1	.....	32	19.50	.....
1923	.....	.....	.....	.....	.....
1924	.....	.....	.....	.....	.....
1925	.....	.....	.....	.....	.....
1926	1	176	.....	86.50	.....
1927	2	500	.....	250.00	.....
1928	6	100	1,994	1,648.69	682
Totals	10	776	2,026	2,004.69	682

Fiscal year.	No. of vessels.	Tonnage. Displacement.	Tonnage. Panama Canal net.	Equivalent tolls.	Tons of cargo.
Vessels transiting Canal solely for repairs:					
1923	1		4,222	4,391.25	
1924	2		14,785	9,779.20	
1925	6		12,799	9,215.28	
1926	12		34,628	24,788.16	
1927	21		35,026	23,770.48	
1928	37		60,108	46,370.88	
Totals	79		161,568	118,315.25	
Total nontolls-paying vessels:					
1915	17		72,332	78,707.98	48,895
1916	47	106,160	60,610	125,389.69	72,575
1917	105	168,603	161,432	247,947.34	150,230
1918	113	125,441	85,321	141,215.15	36,716
1919	181	120,427	97,130	164,358.64	98,349
1920	263	903,182	350,869	830,963.47	356,775
1921	425	1,038,206	404,606	936,699.21	427,494
1922	256	554,437	271,958	544,891.88	200,320
1923	402	944,794	398,393	856,820.44	312,314
1924	420	1,430,894	371,452	1,116,225.57	224,218
1925	386	746,924	323,595	732,034.78	211,401
1926	552	1,077,841	375,539	953,708.54	117,047
1927	597	1,502,616	506,633	1,300,680.29	228,722
1928	503	862,106	516,703	937,776.31	232,672
Totals	4,267	9,581,631	3,996,573	8,967,419.29	2,617,728

The aggregate number of commercial vessels which passed through the Canal from its opening until the end of the fiscal year 1928 was 46,833, paying tolls of $193,307,727.83 and carrying cargo aggregating 215,286,199 tons. Comparison with the commercial traffic shows that the transits for which tolls were not paid were 9 per cent of the number of the commercial transits. The equivalent tolls which might have been collected were 4.6 per cent of the amount of the tolls paid by commercial vessels; and the cargo carried by the ships which did not pay tolls amounted to 1.2 per cent of the quantity carried by the commercial ships.

"Presidente Sarmiento" Visits Canal on World Cruise.

The Argentine Navy training ship *Presidente Sarmiento* arrived at Balboa on September 23, 1928, with a number of midshipmen on board on a cruise around the world. The vessel transited the Canal on September 26 and, after fueling at Cristobal, sailed on the 28th for Havana, New York, Southampton, Boulogne, and Seville, with plans to return to Buenos Aires, via Rio de Janeiro, on February 3, 1929. Before arriving at the Isthmus, the vessel made stops at Cape Town, Colombo, Singapore, Batavia, Fremantle, and Puntarenas.

The *Presidente Sarmiento* is a frigate of 2,700 displacement tons, 279 feet long, and 44 feet beam. She visited the Isthmus in 1915, 1922, and 1926 on similar training cruises.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending September 30, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Hamburg Maru	Nippon Yusen Kaisha	September 17..	September 18..	566	
Tejon	Standard Transportation Co	September 17..	September 18..	10,023	
Tatsuno Maru	Nippon Yusen Kaisha	September 22..	September 22..	62	
St. Mihiel	U. S. Army Transport Service	September 22..	September 26..	1,324	362
Chateau Thierry	U. S. Army Transport Service	September 22..	September 23..	1,030	
Colombia	Panama Mail S. S. Co	September 22..	September 23..	220	
Rhodopis	Hamburg-American Line	September 24..	September 24..	368	
Martha	Chr. Hannevig	September 25..	September 27..	13	641
Witram	Hamburg-American Line	September 26..	September 26..		73
Borga	Fred Olsen	September 30..	September 30..	435	
Logician	T. & J. Harrison	September 20..	September 27..	97	97

Passenger Service on Fort Randolph Branch Discontinued.

Passenger service between Colon and Fort Randolph on the Panama Railroad was discontinued after the close of business on September 30, 1928. Car lot freight shipments destined to France Field, Coco Solo, or Fort Randolph will be switched out from Cristobal yards as occasion demands.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending September 22, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
City of San Francisco	Panama Mail S. S. Co.		September 16.		2,491
Almagro	Pacific Steam Nav. Co.	September 16.	September 16.	143	22
Perene	Peruvian Line		September 16.		211
Noorderdijk	Holland-American Line	September 16.	September 16.	(1)	71
Calainares	United Fruit Co.	September 16.	September 16.	14	532
Jason	Royal Netherlands S. S. Co.	September 16.	September 17.	502	75
Ancon	Panama R. R. S. S. Line		September 17.		3,054
Heredia	United Fruit Co.		September 17.		137
Berengar	North German Lloyd	September 17.	September 17.	(1)	103
Ebro	Pacific Steam Navigation Co.	September 17.	September 17.	1	(2)
Mantaro	Peruvian Line	September 17.	September 18.	(1)	179
Pastores	United Fruit Co.	September 17.	September 19.	1,005	13
Durazzo	Hamburg-American Line	September 17.	September 22	389	557
Manizales	North German Lloyd	September 17.	September 22.	513	133
Atrato	Colombian Transport Line	September 17.		69	
Port Huron	Commonwealth & Dominion Line.	September 18.	September 18.	112	(2)
Hamburg Maru	Osaka Shosen Kaisha	September 18.	September 18.	535	(2)
Antillian	Leyland Line	September 18.	September 19.	445	105
Van Rensselaer	Royal Netherlands S. S. Co.	September 19.	September 19.	½	(2)
Resolute	R. Feuillebois	September 19.	September 19.	(1)	53
Linda S.	R. Feuillebois	September 19.	September 19.	(1)	40
Suriname	United Fruit Co.	September 19.	September 20.	734	509
Saint Louis	French Line	September 19.	September 20.	339	(2)
Orcoma	Pacific Steam Navigation Co.	September 19.	September 20.	87	78
La Marseillaise	French Line	September 19.	September 20.	18	62
Puerto Rico	French Line	September 19.	September 21.	196	1,054
Wiegand	North German Lloyd	September 19.	September 21.	1,622	120
Acajutla	Pacific Steam Navigation Co.	September 19.	September 22.	837	1,145
Favorita	Standard Fruit Co.	September 20.	September 20.	350	5
Santa Luisa	Grace Line	September 20.	September 20.	(1)	8
Coppename	United Fruit Co.	September 20.	September 20.	30	117
Sixaola	United Fruit Co.	September 20.	September 21.	1,013	352
La Perla	United Fruit Co.	September 20.	September 21.	1,285	116
Van Rensselaer	Royal Netherlands S. S. Co.	September 21.	September 22.	1	582
Orazio	Italian Line	September 21.	September 22.	446	(2)
Manaqui	United Fruit Co.	September 21.	September 22.	922	552
Favorita	Standard Fruit Co.	September 22.	September 22.	(1)	488
Commodore Rollins	United Fruit Co.	September 22.	September 22.	6	582
Colombia	Colombian S. S. Co.	September 22.		234	
Grootendijk	Holland-American Line	September 22.		357	
Cartago	United Fruit Co.	September 22.		400	
Lippe	North German Lloyd	September 22.	September 22.	(1)	176
Floreana	Colombian Transport Line		September 22.		317
Grunewald	Hamburg-American Line	September 22.	September 22.	(1)	207
Tatsuno Maru	Nippon Yusen Kaisha	September 22.	September 22.	361	(2)

[1] No cargo discharged. [2] No cargo laded.

Official Circular.

Discontinuance of Passenger Train Service on Fort Randolph Branch Line.

PANAMA RAILROAD COMPANY AND
PANAMA RAILROAD S. S. LINE,
BALBOA HEIGHTS, C. Z., *September 26, 1928.*

To all concerned—In view of the Army and Navy having given notice of withdrawal from agreement regarding the passenger service on the Colon-Fort Randolph branch railroad after close of business September 30, 1928, please be advised that all passenger train service will be discontinued over this branch after that date.

W. F. FOSTER,
Acting Superintendent.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

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"Santa Barbara" Transits Canal on Maiden Voyage.

The new Grace Line motor ship *Santa Barbara* arrived at Cristobal on October 4, on her maiden voyage in the New York-South American trade, via Habana and the Panama Canal. She transited the Canal on the same day and sailed for Valparaiso, Chile, via way ports in Peru and Chile. The *Santa Barbara*, a sister ship of the *Santa Maria* which was placed in this service last May, is 466 feet long by 64 feet beam, and of 8,055 gross tons. She carried 95 passengers and 3,391 tons of general cargo on her maiden voyage.

Following the addition of the *Santa Barbara* to the west coast service, the *Santa Luisa*, one of the Grace Line's original "Santa" passenger and cargo steamers in the South American trade, is to be renamed *El Salvador* and placed in the United States intercoastal service of the Panama Mail Steamship Line.

Classification of Cargo Passing Through the Panama Canal, Showing Origin and Destination During Fiscal Year Ending June 30, 1928.

A statement of all commodities passing through the Panama Canal, showing origin and destination, during the fiscal year ending June 30, 1928, is shown in Tables I and II on pages 124 to 134 of this issue. From the cargo declarations submitted by masters of vessels it has been possible to classify over 82 per cent of the cargo passing from the Atlantic to the Pacific during the year and over 98 per cent of that passing from the Pacific to the Atlantic.

PRINCIPAL COMMODITIES—ATLANTIC TO PACIFIC.

Commodities shipped to the Pacific which aggregated more than 100,000 tons in any of the fiscal years 1928, 1927, 1926, or 1925, are listed in the following tabulation:

Commodity.	Fiscal year ending June 30—			
	1928.	1927.	1926.	1925.
	Long tons.	*Long tons.*	*Long tons.*	*Long tons.*
Manufactures of iron and steel	1,855,532	1,971,964	1,525,280	1,416,135
Mineral oils	717,080	649,379	721,817	948,451
Cement	280,032	222,817	283,328	359,831
Cotton	259,225	361,241	226,092	145,604
Machinery	215,334	172,150	134,411	133,024
Sulphur	207,257	211,625	188,889	165,925
Phosphates	198,826	183,521	162,254	67,206
Railroad materials	188,561	189,858	150,993	138,740
Paper	183,263	150,772	101,493	101,827
Coal	161,610	96,772	222,288	159,231
Tinplate	143,610	194,111	202,773	145,188
Textiles	124,658	91,967	78,770	94,132
Automobiles (exclusive of accessories)	124,553	127,882	125,820	124,972
Ammonia	91,776	134,977	108,104	88,199
Sugar	44,951	282,912	158,997	91,461
All other	3,513,866	3,541,379	3,645,788	3,218,471
Totals	8,310,134	8,583,327	8,037,097	7,398,397

Total cargo passing through the Canal from the Atlantic to the Pacific during the year shows a decrease of 273,193 tons as compared with the fiscal year 1927. Of the 13 commodities shown in the foregoing tabulation as having a total of 100,000 tons or more through the Canal during the year, manufactures of iron and steel, cotton, and tinplate show decreases as compared with 1927. Totals for the other 10 were as great or greater than during the preceding fiscal year.

PRINCIPAL COMMODITIES—PACIFIC TO ATLANTIC.

Commodities shipped to the Atlantic which aggregated more than 100,000 tons in any of the fiscal years 1928, 1927, 1926, or 1925, are listed in the following tabulation:

Commodity.	Fiscal year ending June 30—			
	1928.	1927.	1926.	1925.
	Long tons.	*Long tons.*	*Long tons.*	*Long tons.*
Mineral oils	5,619,076	7,143,165	5,930,716	5,989,622
Lumber	3,673,832	3,139,113	3,200,311	2,255,421
Wheat	3,035,884	1,477,376	1,187,384	1,078,844
Nitrates	2,565,572	1,174,384	1,878,050	2,155,814
Iron ore	1,400,490	1,403,737	1,334,408	1,045,383
Sugar	577,781	427,035	318,032	300,465
Copper (metal)	443,381	357,456	319,045	211,168
Canned fruit	434,424	403,270	356,609	255,688
Food products in cold storage [1]	288,952	245,520	221,068	202,781
Dried fruit	272,644	200,433	150,229	135,832
Barley	237,262	344,341	313,535	236,115
Canned fish	178,245	209,491	168,701	165,071
Wool	167,931	129,906	146,092	91,586
Coffee	132,862	113,313	104,739	81,881
Beans	127,168	73,569	54,565	101,218
Flour	112,191	90,988	64,391	82,402
Cotton	95,724	107,311	65,850	75,358
All other	1,957,156	2,124,480	2,186,626	2,095,790
Totals	21,320,575	19,164,888	18,000,351	16,560,439

[1] Does not include fresh fruit.

The Pacific-to-Atlantic cargo movement during 1928 was larger than during the year preceding by 2,155,687 tons. Since shipments of mineral oils in this direction through the Canal declined as compared with the year preceding, approximately 1,500,000 tons, this means an increase in other commodities of over 3,600,000 tons. Most of the major commodities through the Canal from the Pacific to the Atlantic during the year show substantial increases. Shipments of nitrates and wheat were more than double those during the preceding year.

CARGO FROM ATLANTIC TO PACIFIC—ORIGIN AND DESTINATION.

During the fiscal year 1928 approximately 65 per cent of the cargo passing through the Canal Pacific-bound originated on the eastern and Gulf seaboard of the United States and 26 per cent in Europe. During the past four fiscal years these areas have contributed from 85 to 90 per cent of the cargo moving in this direction.

Four areas absorbed approximately 91 per cent of this cargo in 1928, as follows: West coast of the United States, 40 per cent; Far East, 21 per cent; Australasia, 16 per cent; and South America, 14 per cent. During the past four fiscal years over 90 per cent of the cargo Pacific-bound through the Canal has been destined to these areas with about 39 per cent going to the west coast of the United States. Following are the figures for the fiscal years 1925, 1926, 1927, and 1928:

	1925.	1926.	1927.	1928.
Origin.	*Long tons.*	*Long tons.*	*Long tons.*	*Long tons.*
East coast of United States	4,815,528	5,276,563	5,598,149	5,402,037
Europe, including British Isles	1,978,969	1,963,921	1,738,715	2,197,166
All other	603,900	796,613	1,246,463	710,931
Total for year	7,398,397	8,037,097	8,583,327	8,310,134
Destination.				
West coast of United States	2,913,887	3,160,966	3,520,156	3,287,624
Far East	1,215,680	1,502,246	1,545,206	1,718,819
Australasia	1,289,359	1,404,610	1,455,328	1,364,952
West coast of South America	1,338,150	1,281,691	1,065,822	1,218,094
All other	641,321	687,584	996,815	720,645
Total for year	7,398,397	8,037,097	8,583,327	8,310,134

CARGO FROM PACIFIC TO ATLANTIC—ORIGIN AND DESTINATION.

During the fiscal year 1928 four regions of origin furnished approximately 96 per cent of the cargo Atlantic-bound through the Canal as follows: West coast of United States, 54 per cent; west coast of South America, 26 per cent; west coast of Canada, 13 per cent; and Australasia, 3 per cent. During the past four fiscal years these four regions of origin have accounted for approximately 95 per cent of the total cargo moving in this direction.

Approximately 54 per cent of the cargo Atlantic-bound through the Canal in the fiscal year 1928 was destined to the eastern seaboard of the United States, and approximately 37 per cent was destined to Europe. These two regions of destination have absorbed over 90 per cent of the Atlantic-bound cargo during the past four fiscal years. Total figures are shown in the following tabulation:

	1925.	1926.	1927.	1928.
Origin.	*Long tons.*	*Long tons.*	*Long tons.*	*Long tons.*
West coast of United States	9,554,101	10,116,515	11,860,156	11,455,596
West coast of South America	4,714,243	4,861,436	4,234,767	5,586,618
West coast of Canada	1,082,282	1,650,855	1,520,666	2,845,675
Australasia	480,539	623,399	567,715	684,614
All other	729,274	748,146	981,584	748,072
Totals for year	16,560,439	18,000,351	19,164,888	21,320,575
Destination.				
East coast of United States	10,821,433	11,388,560	11,169,492	11,611,865
Europe, including British Isles	4,710,382	5,080,825	5,461,059	7,922,636
All other	1,028,624	1,530,966	2,534,337	1,786,074
Totals for year	16,560,439	18,000,351	19,164,888	21,320,575

TOTAL CARGO.

Total cargo in long tons through the Canal during the past four fiscal years has been: 1928, 29,630,709; 1927, 27,748,215; 1926, 26,037,448; and 1925, 23,958,836. The total amount of cargo tonnage passing through the Canal during the past fiscal year established a new high record over any previous calendar or fiscal year.

(Continued on page 124.)

"Karamea" Transits Canal on Maiden Voyage.

The motor ship *Karamea* of the Shaw, Savill & Albion Company, transited the Canal on her maiden voyage on September 29, 1928, en route from Middleboro, England, to Wellington, N.Z. The *Karamea* is the fourth of four new motor ships constructed for the Shaw, Savill & Albion Company for the United Kingdom-New Zealand trade, having been preceded by the *Zealandic*, the *Taranaki*, and the *Coptic*.

The *Karamea* is 483 feet long, 64 feet beam, and of 10,460 deadweight tons. She is equipped with accommodations for 8 first-class passengers.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, October 6, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.		
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Gracia	29	4.00	30	6.10	30	13.37	30	14.50	British	Donaldson Brothers.	415 0	54 0	20 1	Glasgow-England.	Vancouver, B. C.	General, bananas	1,046	6,809	4,842
Borga [2]	30	00.05	30	6.20	30	14 04	10–1	1 45	Norwegian.	Fred Olsen & Co.	362 4	51 4	21 0	Oslo, Norway	Vancouver, B. C.	General	5,450	5,242	3,706
Melpomene [1]	30	00.30	30	7.20	30	14 17	9–30	15.35	French	Compagnie Aux. de Nav	425 8	56 9	20 3	Sette, France.	Los Angeles, Calif.	Ballast		7,085	5,050
Telena [1] [2]	29	10.35	30	7.35	30	14.37	30	19 43	British	Anglo-Saxon Pet. Co	440 0	59 2	19 0	Hamburg,Germany	Los Angeles, Calif.	Ballast		7,917	4,849
August Leonhardt	30	8.18	30	8 45	30	15.42	30	19.43	German	Colombian MaritimeCo.	328 0	46 0	14 0	New York, N. Y..	Buenaventura, Col.	General, cattle	460	3,724	2,817
Suwied	30	8.25	30	9 00	30	15.46	30	16.48	American	Charles Nelson & Co.	324 0	46 2	19 9	Baltimore, Md	Seattle, Wash	General	2,987	3,983	2,629
Sutorpco	30	8.55	30	9 10	30	16.15	30	17.15	American	Transmarine Lines.	324 0	46 0	17 0	Newark, N. J	San Francisco, Cal.	General	708½	3,984	2,612
Atlantic City	30	9.05	30	9.30	30	17.14	30	18.45	British	Reardon Smith Line	411 0	54 6	25 6	Houston, Texas.	Yokohama, Japan	General	6,710	6,555	4,656
Kasama	30	00.10	30	10.10	30	18.05	30	19.43	British	Ellerman Bucknall Line	400 6	50 0	21 10	New York, N. Y..	Dunedin, N. Z.	General	2,673	5,644	4,113
Chinese Prince [2]	30	10.05	30	10.50	30	18.19	30	19.43	British	Prince Line, Ltd.	441 0	60 0	24 6	New York, N. Y..	Shanghai, China.	General	6,391	9,254	6,265
Dunstaffnage	30	11.55	30	12.05	30	19 13	30	21.40	British	Wessel Duval & Co	384 0	52 0	19 0	New York, N. Y..	Valparaiso, Chile	General	1,808	5,173	3,651
Hertford	30	13.00	30	13.20	30	20.15	10–1	11.20	British	Federal Steam Nav. Co.	520 0	64 0	26 0	Newport, England	N. Plymouth, N.Z	General	9,711	12,933	9,264
Amsterdam	30	5.55	10–1	6.10	10–1	13.14	1	14.20	Dutch	Royal Neth. S. S. Co.	474 0	65 0	21 0	Hamburg,Germany	Corral, Chile.	General	4,428	11,638	7,744
San Jose	10–1	5.50	1	6.15	1	14.11	1	15.10	American	United Fruit Co	330 0	44 6	19 6	Port Limon, C. R..	San Francisco, Cal.	Coffee, bananas.	467	3,670	2,353
S–16 [3]	[4]		1	6.15	1	14.05			American	U. S. Navy	231 0	21 10		Cristobal, C. Z.	Balboa, C. Z				
Atrato [2]	9–17	16.07	1	6.00	1	14.39	3	9 47	Colombian.	Colombian Transp. Co	94 0	23 0	7 6	Cristobal, C. Z	Buenaventura, Col.	General	160	160	92
Dean Emery [1]	30	22.05	1	7.10	1	14 38	1	15 55	American	Huasteca Petroleum Co.	429 3	59 0	20 0	Baltimore, Md	Los Angeles, Calif.	Ballast		7,709	5,517
King Edgar [2]	30	23.00	1	7.33	1	15.30	1	21 38	British	Anglo-Mexican Pet. Co.	400 0	54 0	23 3	Tampico, Mexico	N. Plymouth, N.Z.	Asphalt	7,186	6,474	4,686
Oran	10–1	2.30	1	8.20	1	15.57	1	17.20	American	Oriental Navigation Co.	409 0	54 0	18.6	Wilmington, Del.	Portland, Oreg	General	3,487	6,755	4,887
Charles Christenson	1	3.30	1	8.35	1	16.25	1	17.20	American	Arrow Line	409 0	54 0	18 11	Baltimore, Md	Portland, Oreg	General	4,587	6,693	4,915
Profit	1	4.10	1	9.50	1	16.50	1	17.55	Norwegian.	Munson S. S. Line.	246 0	37 0	11 10	New York, N. Y.	Corinto, Nicaragua	(4)	700	1,629	1,114
Robin Goodfellow	1	11.08	1	11.15	1	19.13	1	20 46	American	Isthmian S. S. Lines	424 8	55 0	27 0	Baltimore, Md	Tacoma, Wash	Steel, general.	8,872	7,473	5,536
Hoyanger [2]	1	12.10	1	12.25	1	19 31	1	20.46	Norwegian.	Westfal-Larsen & Co.	381 0	53 6	19 6	Buenos Aires, Arg	Vancouver, B. C.	General, coffee	2,482	6,289	4,723
Carolyn	9–30	14.50	1	12.35	1	20.12	1	21.30	American	Grace Line	313 0	46 0	18 2	New York, N. Y..	Callao, Peru.	General	2,094	3,643	2,566
Counsellor	30	14.43	1	13.25	1	20.40	1	21.50	British	T. & J. Harrison.	395 0	52.0	17.6	Liverpool, England	Vancouver, B. C.	General		5,753	3,857
Gold Shell [1]	10–1	15.05	1	15.10	2	21.50	2	2.15	Dutch	Nederland Indische Tankboot Maat.	411 6	53.4	21 0	Liverpool, England	Los Angeles, Calif.	Ballast		6,201	4,336
Indien [2]	1	16.15	1	19.10	2	9.30	2	13.05	Danish	Canadian Transp. Co	390 0	53.0	18.0	Philadelphia, Pa.	Portland, Oreg	Paper	2,800	6,173	4,418
Marore	1	17.05	2	6.05	2	13.37	2	14.55	American	Ore S. S. Corp	550 3	72 2	18.0	New York, N. Y.	Cruz Grande, Chile	Ballast		15,551	4,297
Francis E. Powell [1]	2	5.25	2	6.20	2	14.10	2	15.30	American	Atlantic Refining Co	431 0	59 2	18.6	Providence, R. I.	Los Angeles, Calif.	Ballast		7,860	5,101
Charles R. McCormick	2	5.50	2	7.15	2	14.56	2	16.10	American	Munson-McCor'k Line	401 0	53.0	27.1	Baltimore, Md	Seattle, Wash	Steel, general.	9,100	7,082	5,167
Hadnot [1]	2	9.05	2	9.15	2	15.52	2	16.55	American	Cities Service Corp	416.0	56.2	18.0	Chester, Pa	Los Angeles, Calif.	Ballast		6,706	4,639
Volunteer	2	11.40	2	11.45	2	18.44	2	19.51	American	American-Pioneer Line	410 0	56.0	27.6	Corpus Christi, Tex.	Manila, P. I	(5)	6,279	8,214	6,183

[1] Tanker. [2] Motor ship. [3] Submarine. [4] Railway materials. [5] Cotton, gasoline, and kerosene.

Chastine Maersk [1]	2	11.45	2	12.05	2	19.30	2	20.34	Danish	A. P. Moller	378.0	50.2	24.8	Savannah, Ga.	Yokohama, Japan	General	7,000	5,526	4,066
Rochester [6]	1	21.05	2	13.20	2	20.40			American	U. S. Navy	380.0	64.0	28.3	Cristobal, C. Z.	Balboa, C. Z.				
West Mahwah	2	9.40	2	13.45	2	20.56	2	22.45	American	McCormick S. S. Line	410.5	54.0	15.9	Buenos Aires, Arg	Vancouver, B. C.	General	1,903	6,588	5,049
General Smuts	2	13.05	2	13.45	2	21.54	2	23.25	British	W. L. Comyn & Co	386.7	52.8	14.0	Rotterdam, Holland	Los Angeles, Calif	Ballast		5,466	3,841
Kenowis [7]	9–27	1.05	3	6.05	3	13.24	5	13.35	American	U. S. Army	390.0	54.2	18.5	New York, N. Y.	San Francisco, Cal.	(10)	1,318		
Empirestar	10–2	19.00	3	6.10	3	13.27	4	3.45	British	Blue Star Line	423.4	56.0	21.0	Amst'dam, Holland	Portland, Oreg.	Ballast		7,744	5,621
Panaman	2	16.20	3	7.17	3	14.02	3	15.10	American	Amer.-Hawaiian Line	407.7	53.7	20.0	New York, N. Y.	Tacoma, Wash.	General	2,626	7,098	5,065
Bethore	2	7.35	3	7.10	3	15.10	3	16.15	American	Ore S. S. Corp.	550.3	72.2	23.5	Norfolk, Va.	Cruz Grande, Chile	Ballast		15,476	4,354
Lewis Luckenbach	3	3.05	3	8.30	3	15.40	3	16.40	American	Luckenbach Line	496.0	68.2	20.6	Boston, Mass.	Seattle, Wash.	General	4,587	11,487	8,762
Denmark Maru	3	5.35	3	9.35	3	16.47	3	18.10	Japanese.	Kawasaki Kisen Kaisha	385.0	51.0	27.3	Boca Grande, Fla.	Dairen, China	(11)	7,364	5,926	4,398
West Mingo	3	6.25	3	10.10	3	17.11	3	18.20	American	Calif. & East'n S. S. Co.	410.0	54.4	19.0	Philadelphia, Pa.	Seattle, Wash.	General	2,285	6,476	4,682
Ucayali	2	15.20	3	10.49	3	17.41	3	20.37	Peruvian	Peruvian Line	374.7	46.3	18.7	Covenas, Colombia	Callao, Peru.	Cattle, general	316½	4,466	2,405
Sabotawan	3	10.35	3	11.40	3	19.30	5	21.50	American	Redwood Line	387.0	52.2	23.0	Mobile, Ala.	San Francisco, Cal.	Steel, general	5,376	5,708	4,138
Paul Shoup [4]	3	11.45	3	12.50	3	20.14	3	21.28	American	Atlantic Refining Co	424.4	58.2	23.0	Philadelphia, Pa.	San Francisco, Cal.	Ballast		7,333	5,182
Lucigen [4]	3	8.45	3	13.34	3	21.22	3	22.48	British	H. E. Moss & Co	388.0	50.0	21.2	Newcastle-on-Tyne	Los Angeles, Calif.	Ballast		5,088	3,741
Madras City	3	18.30	3	19.40	4	9.21	4	11.09	British	Sir W. R. Smith & Sons	383.9	53.0	13.0	Barry, England	Victoria, B. C	Ballast		5,913	4,377
Diomede [6]	3	17.40	4	6.00	4	12.36	6	10.15	British	British Government	445.0	46.6	17.0	Trinidad, B. W. I.	Los Angeles, Calif.	Ballast			
Ramon de Larrinaga	3	15.05	4	5.15	4	14.22	4	15.45	British	Larrinaga S. S. Co	449.9	57.9	17.0	N. Shields, Eng.	Vancouver, B. C.	Ballast		7,712	5,600
Henry D. Whiton	4	6.50	4	7.33	4	14.43	4	15.45	American	Union Sulphur Co	356.0	51.6	17.0	New York, N. Y.	Los Angeles, Calif.	Ballast		5,367	2,925
Santa Barbara [2]	4	1.05	4	10.13	4	16.30	4	24.00	American	Grace Line	466.0	64.0	23.0	New York, N. Y.	Talcahuano, Chile	General	3,403		6,500
Sciota [8]			4	6.25	4	13.55			American	U. S. Navy	149.3	30.0		Cristobal, C. Z.	Balboa, C. Z				
Trocas [1] [2]	4	17.20	4	18.40	5	9.02	5	15.25	British	Anglo-Saxon Pet. Co	440.4	59.5	19.6	London, England	Los Angeles, Calif.	Ballast		7,918	4,797
Salvador	9–27	15.55	5	5.57	5	13.55	5	15.25	British	Pacific Steam Nav. Co.	215.0	33.5	17.1	Cristobal, C. Z.	Champerico, Guat	General	1,127½	1,270	735
Mabriton	10–4	19.15	5	7.08	5	14.21	5	15.25	British	R. Chapman & Son	412.0	55.5	17.0	Algiers, Algeria.	Vancouver, B. C.	Ballast		6,823	4,797
Beldis [2]	5	4.00	5	9.25	5	15.51	5	22.20	Norwegian.	Chr. Smith	294.0	45.0	14.10	Stettin, Germany	La Union, Salvador	Locomotives	672	2,715	1,678
Pensylvanie	3	13.15	5	11.04	5	17.51	5	20.40	French	French Line	400.0	52.0	20.9	Havre, France.	Corral, Chile	General	2,897	5,964	4,384
City of Windsor	5	7.28	5	11.32	5	18.46	5	19.54	British	Ellerman Bucknall Line	447.0	57.0	24.4	New York, N. Y.	Fremantle, Aust'lia	General	5,794	8,691	6,637
Erfurt [4]	4	8.40	5	12.13	5	20.55	5	22.20	German	Roland Line	365.0	45.0	23.0	Bremen, Germany	Champerico, Guat	General	4,520	5,038	3,533
Laguna [2]	4	23.00	5	13.05	5	20.10	6	00.57	British	Pacific Steam Nav. Co	420.5	54.2	19.11	Glasgow-England	Corral, Chile	General	4,508½	7,139	4,640
Raranga	5	17.30	5	18.05	6	8.48	6	10.15	British	Can.-Amer. Shipp. Co	478.0	63.0	19.0	London, England	Puget Sound, Wash.	Ballast		11,070	7,931
Belmoira [4]	5	17.10	5	19.35	6	11.43	8	10.00	Norwegian.	R. Smith	329.6	49.2	21.0	Pt. Albert, England	Kembla, Australia	General	4,103		
Tulsa [9]	5	16.45	6	6.17	6	13.14			American	U. S. Navy	241.2	41.2	17.8	Bluefields, Nic'gua.	Balboa, C. Z				
Eleanor Boling	4	17.50	6	6.09	6	14.40			American	Byrd Antartic Exped'n.	170.0	30.0	15.8	New York, N. Y.	Dunedin, N. Z.	General	600	643	303
Geo. H. Jones [4]	5	17.18	6	6.30	6	14.05	6	15.20	American	Standard Transp. Co.	429.0	59.2	24.0	Wilmington, N. C.	Los Angeles, Calif.	Ballast		7,689	5,667
Chilore	6	00.45	6	7.25	6	14.57	6	16.00	American	Ore S. S. Corp.	549.0	72.0	22.0	Baltimore, Md.	Cruz Grande, Chile	Ballast		14,538	9,348
Point Judith	6	2.40	6	7.30	6	16.45	6	17.40	American	Swayne & Hoyt	289.0	44.0	18.0	New Orleans, La.	Seattle, Wash.	General	2,266	2,902	1,962
Imlay [4]	6	5.10	6	7.25	6	15.47	6	16.50	American	Atlantic Refining Co	425.0	57.0	19.0	New York, N. Y.	La Libertad, Ecua'r	Ballast		7,218	4,959
Pacific Spruce	6	6.45	6	8.40	6	16.50	6	17.45	American.	Dimon S. S. Corp	409.0	54.0	20.0	New York, N. Y.	Seattle, Wash	General	4,593	6,624	4,757
Sutherland	6	9.35	6	9.45	6	17.41	6	18.48	American.	Charles Nelson & Co.	380.0	53.2	19.0	Baltimore, Md.	Seattle, Wash	(12)	3,595	5,654	4,123
Aachen	5	20.55	6	11.08	6	18.28	6	20.45	German	North German Lloyd	431.0	56.0	24.1	Hamburg, Germany	San Antonio, Chile.	General	4,040		
Siljestad [2]	6	11.58	6	12.15	6	19.35	6	20.45	Norwegian.	Fern Line	376.0	53.6	24.0	Tampa, Fla	Osaka, Japan	Phosphate, cot'n.	7,207	6,264	4,706
Patrick Henry.	6	12.53	6	13.10	6	21.25	6	22.44	American.	Amer.-Pioneer Line	439.0	60.0	27.6	Mobile, Ala	Manila, P. I.	Cotton, general.	9,532	8,987	6,612
Cauca [2]	9–15	18.20	6	13.19	6	22.10	7	1.35	Colombian.	National Nav. Co	107.0	22.0	13.0	Cristobal, C. Z.	Buenaventura, Col.	General	458	238	163
Jersey City	10–5	24.00	6	13.55	6	21.42	7	10.50	British	Reardon Smith Line	411.0	55.0	14.0	Rotterdam, Holland	Vancouver, B. C.	Ballast		6,952	5,005
Tudorstar	6	6.55	6	14.45	7	8.58	7	11.28	British	Blue Star Line	440.0	54.3	20.0	River Tyne, Eng.	Vancouver, B. C.	Ballast		7,624	5,574
Henry S. Grove	6	14.00	6	15.05	7	10.40	7	11.37	American	Argonaut S. S. Co	404.0	54.0	27.0	Baltimore, Md.	Tacoma, Wash	General	7,845	6,755	4,688

[1] Tanker. [4] Cruiser. [7] Transport. [8] Tug. [9] Gunboat. [10] Military supplies. [11] Phosphates, scrap rails, and cotton. [12] Coal, iron, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Cities Service Petrol [1]	30	6.00	30	8 38	30	16 55	30	23 40	American	Cities Service Corp.	462 3	62.7	29 8	Los Angeles, Calif	Philadelphia, Pa.	Crude oil	12,000	9,802	7,292
Beckenham	29	22 50	30	9 00	30	17 25	30	20 15	British	Watts, Watts & Co	370 0	50 6	21 0	Vladivostok, Sib'ria	London, England	Lumber	4,288	5,979	3,452
Equatore [13]	30	4.50	30	9 26	30	18 03	2	00 15	Italian	Baronte Cino	362 8	50 5	24 6	Valparaiso, Chile	Genoa, Italy	Nitrates, copper	6,603	5,098	3,415
Vancolite [1] [13]	30	9.35	30	10 29	30	18 45	30	20 00	British	Imperial Oil Co., Ltd.	510 2	68 2	30 6	Talara, Peru	Montreal, Canada	Crude oil	15,737	11,573	8,008
Aden Maru	30	10.00	30	10 49	30	19 35	1	1 20	Japanese	Kokusai Kisen Kaisha	385 0	51 0	27 6	Portland, Oreg	Gibraltar [16]	Wheat	7,763	6,203	4,672
Negada	30	14.15	30	15 10	30	22 25	1	15 20	German	Hamburg-American Line	410 9	50 7	26 5	Punta Arenas, Chile	Hamburg, Germany	General	6,928	6,402	4,463
Cleveland [14]	25	13 04	10-1	6 28	10-1	14 25	10	3 6 00	American	U. S. Navy	292 0	44 0	.	Balboa, C. Z	Cristobal, C. Z				
Surico	30	17 30	1	6 58	1	15 25	1	15 25	American	Transmarine Lines	324 0	46 2	25 0	Seattle, Wash	Newark, N. J	Lumber	3,950	3,984	2,628
Alkmaar	30	22 20	1	8.12	1	17 00	2	1 30	Dutch	Royal Neth. S. S. Co.	466 0	62 6	28 3	Valparaiso, Chile	Hamburg, Germany	General	10,557	9,505	6,644
Forthbridge	1	1.15	1	8.45	1	18 15	1	19 55	British	Crosby Magee & Co	390 0	54 9	25 0	Vancouver, B. C.	Boston, Mass	Lumber	7,125	6,246	4,627
Willfaro	1	7 00	1	9 02	1	19 00	1	21 10	American	Williams S. S. Co	386 8	52 2	24 6	Bellingham, Wash	New York, N. Y.	Lumber, general	6,279	5,684	4,070
Falsterbo [11]	1	9 00	1	10 14	1	19 20	1	22 45	Swedish	W. L. Comyn & Co	365 7	50 6	26 5	Portland, Oreg	Rotterdam, Holland	Wheat, rye	6,025	4,917	3,528
Rochester [11]			1	13 26	1	21 05	2	13 20	American	U. S. Navy	384 0	65 0	.	Balboa, C. Z	Cristobal, C. Z				
Canadian British	1	16 30	1	17 07	2	11 40	2	13 15	British	Can. Nat. Steamships	400 3	52 2	16 6	Dunedin, N. Z.	Montreal, Canada	Wool, hides	1,192	5,906	4,187
Sciota [15]			2	6 30	2	12 55			American	U. S. Navy	155 0	30 0		Balboa, C. Z	Cristobal, C. Z	[17]			
E. T. Bedford [1] [13]	2	3.43	2	6 45	2	15 30	2	15 30	American	Standard Shipping Co.	499.2	68 1	29 6	Talara, Peru	New York, N. Y.	Crude oil	15,560	10,994	7,893
Dorothy Luckenbach	2	3.00	2	7 20	2	18 05	2	18 05	American	Luckenbach Line	448.9	60 2	30 0	Portland, Oreg	Boston, Mass	Lumber, general	10,000	9,294	6,861
Mexican	2	6.45	2	8.13	2	18 50	2	18 50	American	Amer.-Hawaiian Line	472 3	57 2	28 9	Portland, Oreg	Boston, Mass	General	10,348	9,258	6,944
Eleanor Christenson	2	7.30	2	8.24	2	19 15	2	19 15	American	Christenson S. S. Co	410 5	54 3	24 0	Portland, Oreg	Baltimore, Md	Lumber, grain	6,700	6,572	4,788
Skegness	2	8.20	2	9 17	2	20 50	2	22 55	British	Sir. W. R. Smith & Sons	401 5	54 3	14 8	Portland, Oreg	Dublin, Ireland	Bulk wheat	7,720	6,621	4,916
Teno	2	9 30	2	10.44	2	17 55	2	22 25	Chile	South American Line	422 8	56 2	25 0	Valparaiso, Chile	Brooklyn, N. Y.	General	4,085	7,764	4,672
Nikola Mihanovic	2	10.30	2	11 15	2	20 15	2	20 15	Yugoslav	Yugoslav-Amer. Nav. Co.	400 5	52 2	26 0	Tocopilla, Chile	Brixham, England	Nitrates	7,678	5,286	3,969
Sunelseco	2	12.00	2	13 14	2	21 45	2	23 10	American	Transmarine Lines	324 0	46 2	23 0	Los Angeles, Calif	Port Newark, N. J.	Lumber	3,918	3,984	2,612
Golden Gate	2	12.30	2	13 40	2	22 05	2	23 25	Norwegian	Scand.-So. Pacific Line	381 0	53 1	23 0	San Antonio, Chile	Oslo, Norway	General	6,640	5,616	3,879
Cape Ortegal	2	13 55	2	14 42	2	23 30	3	00 50	British	Lyle Shipping Co	403 0	52 4	24 7	Vancouver, B. C.	Antwerp, Belgium	Wheat, lumber	7,520	5,650	4,071
Svealand [1] [13]	2	11.50	2	16 37	3	12.30	3	13 45	Swedish	Axel Brostrom & Sons	561.3	72.2	33.0	Cruz Grande, Chile	Baltimore, Md	Iron ore	21,000	15,425	4,421
Pacific Redwood	2	19.30	3	6.09	3	14 10	3	14 10	American	Dimon S. S. Corp.	409.5	54 2	24 0	Tacoma, Wash	New York, N. Y.	Lumber	7,500	6,537	4,841
Vinemoor [13]	2	23.00	3	7 25	3	15 45	3	18 45	British	W. Runciman & Co.	375.0	52 6	25.0	Portland, Oreg	Leixoes, Portugal	Wheat	7,350	6,099	4,691
Lancaster	3	4.30	3	8 17	3	17.05	3	17 05	American	Argonaut S. S. Co	434 0	57.7	27.0	Englewood, B. C.	New York, N. Y.	Lumber	7,800	7,935	5,841
Pacific President [13]	2	20 15	3	10.17	3	17.30	3	17.30	British	Furness, Withy & Co.	450.4	60 8	28 6	Vancouver, B. C.	Glasgow, Scotland	General	8,134	10,086	7,226
Koranton	3	12.05	3	12 54	3	20.35	3	20 35	British	R. Chapman & Son	413.0	53.5	27.6	Vancouver, B. C.	Europe	Wheat	9,815	6,811	4,810

[1] Tanker. [13] Motor ship. [14] Cruiser. [15] U. S. Navy tug. [16] For orders. [17] Towing barge *No. 2*.

Tuscaloosa City	3	16.50	3	17.39	4	11.40	4	11.40	American	Isthmian S. S. Lines	424.2	56.2	26.0	Vancouver, B. C.	New York, N. Y.	General	6,710	7,611	5,450
Iossofoglu [13]	9–28	7.40	4	6.20	4	14.25	4	14.25	British	Canadian Transp. Co	400.8	53.5	23.0	Victoria, B. C.	Montreal, Canada	Lumber	7,000	6,903	5,185
Minnesota	10–3	19.45	4	6.29	4	14.45	5	21.33	French	French Line	412.3	50.7	25.8	Talcahuano, Chile	Le Havre, France	Nitrates, general	7,112	6,483	4,441
Myrtle	3	24.00	4	7.02	4	15.30	4	15.30	American	States S. S. Co	426.5	54.0	26.0	Portland, Oreg.	New York, N. Y.	(19)	7,466	6,755	4,895
Steel Voyager	3	21.55	4	8.23	4	15.50	4	15.50	American	Isthmian S. S. Lines	395.5	55.0	28.0	Seattle, Wash.	Avonmouth, Eng.	Lumber, general	8,031	7,330	5,249
Oilshipper [1]	4	7.10	4	8.39	4	16.50	4	20.35	British	British Oil Shipping Co.	410.0	53.5	24.0	Los Angeles, Calif.	Barcelona, Spain	Gasoline	7,895	5,942	4,037
Limon	4	2.19	4	9.03	4	17.15	5	17.20	American	United Fruit Co	330.6	44.5	18.0	San Francisco, Cal.	Port Limon, C. R.	General	527	3,675	2,229
Remuera	4	3.00	4	13.10	4	19.40	4	19.40	British	N. Z. Shipping Co.	485.0	62.3	25.0	Auckland, N. Z.	London, England	Frozen, general	5,189	11,911	8,945
King John [13]	4	14.35	4	15.16	4	22.25	4	22.25	British	Dodd, Thomson & Co.	400.7	54.8	23.9	Portland, Oreg.	Rotterdam, Holland	Wheat	7,720	6,284	4,335
Vulcan City	4	16.35	4	17.20	5	10.50	5	12.25	British	Sir W. R. Smith & Sons.	420.4	54.5	25.0	Vancouver, B. C.	Belfast, Ireland	Wheat, lumber	7,300	6,870	5,043
El Lobo [1]	4	16.55	5	6.29	5	13.45	5	13.45	British	C. T. Bowring	385.0	51.0	23.6	La Libertad, Ecua'r	Philadelphia, Pa.	Crude oil	6,484	4,851	3,326
Cherry Branch	5	4.40	5	7.08	5	16.10	5	17.45	British	Gulf Line	400.0	52.0	23.0	Taltal, Chile	Liverpool, England	Nitrates, general	6,782	5,403	3,960
William H. Doheny [1]	5	7.45	5	8.30	5	16.45	5	16.45	American	Pan.-Amer. Pet. & Tr. Co.	435.0	56.2	26.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,835	7,406	5,111
Cali	5	10.00	5	10.46	5	17.50			German	North German Lloyd	228.0	32.7	12.2	Guayaquil, Ecuador	Cristobal, C. Z.	General	219	1,105	698
Cerigo	5	12.10	5	13.21	5	20.25	7	19.57	German	Hamburg-American Line	227.2	34.4	14.0	Guayaquil, Ecuador	Cristobal, C. Z.	(20)	833	1,572	1,011
Despatch H.M.S	4	16.05	6	6.16	6	12.50	6	14.40	British	British Government	473.0	46.0	16.0	San Diego, Calif.	Jamaica, B. W. I				
Cape York [13]	6	2.30	6	7.21	6	14.45	6	17.35	British	Lyle Shipping Co., Ltd.	410.0	53.0	28.3	Astoria, Oreg.	Glasgow, Scotland	General	8,047	6,927	4,802
Edward Luckenbach	6	7.00	6	8.06	6	18.30	6	18.30	American	Luckenbach Line	436.6	57.2	30.4	Portland, Oreg.	New Orleans, La.	General	9,704	8,543	6,427
Sutermeo	6	9.00	6	9.40	6	19.00	6	19.00	American	Transmarine Lines	324.0	46.2	22.3	Portland, Oreg.	Newark, N. J.	Lumber	4,101	3,984	2,628
O–6 [18]			6	10.05	6	18.45			American	U. S. Navy	175.0	16.4		Balboa, C. Z.	Cristobal, C. Z.				
Castle Town	6	11.00	6	11.55	6	20.05	6	23.30	American	Charles Nelson & Co.	321.7	50.0	21.5	Seattle, Wash.	Norfolk, Va.	Lumber	4,450	3,872	2,568
Emil Kordorf	6	12.45	6	13.27	6	21.15	6	23.45	German	Hamburg-American Line	409.8	53.0	23.2	Vancouver, B. C.	Hamburg, Germany	General	6,349	7,141	5,468
Reedpool	6	13.10	6	14.14	6	23.00	7	1.00	British	Sir. W. R. Smith & Sons.	390.0	55.5	23.6	Everett, Wash.	W. Hartlepool, Eng	Lumber	6,747	5,890	4,199
West Katan	6	14.05	6	14.53	6	23.35	6	23.35	American	Calif. & East'n S.S. Co.	410.5	54.3	26.4	Seattle, Wash.	Philadelphia, Pa.	Lumber	7,500	6,573	4,916

[1] Tanker. [18] Submarine. [19] Lumber, wheat, and general. [20] Coffee, cocoa, hides, and ivory nuts.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
September 30	Sangro	Anglo-Saxon Petroleum Co	Curacao, D. W. I.	September 30	Dakotian	Leyland Line	Puerto Colombia.
September 30	Ulua	United Fruit Co	Port Limon, Costa Rica.	September 30	Ulua	United Fruit Co	New York via Habana.
September 30	Polarland	Estrada G. Hermanos	Puerto Colombia.	October 1	Parismina	United Fruit Co	New Orleans via wayports.
October 1	Maravi	United Fruit Co	New York via Habana.	October 1	Polarland	Estrada G. Hermanos	New York, N. Y.
October 1	Toloa	United Fruit Co	New York via Habana.	October 1	Cristobal	Panama Railroad S. S. Line	New York via Haiti.
October 3	Flandre	French Line	Havre via wayports.	October 2	Maravi	United Fruit Co	Puerto Colombia.
October 3	Coppename	United Fruit Co	New Orleans, La.	October 3	Toloa	United Fruit Co	Port Limon, Costa Rica.
October 3	Santa Marta	United Fruit Co	New York via Kingston	October 4	Coppename	United Fruit Co	Pto. Colombia and Bocas.
October 4	Saramacca	United Fruit Co	Bocas del Toro, R. P.	October 4	Sangro	Anglo-Saxon Petroleum Co	Curacao, D. W. I.
October 4	Favorita	Standard Fruit & S. S. Co	New Orleans, La.	October 4	Santa Marta	United Fruit Co	New York via wayports.
October 4	Oranian	Leyland Line	Liverpool via wayports.	October 4	Saramacca	United Fruit Co	New Orleans, La.
October 4	Smaragd	United Fruit Co	Mobile, Ala.	October 4	Smaragd	United Fruit Co	Perme, R. P.
October 4	Inapaquina [21]	United Fruit Co	Colon, R. P.	October 4	Inapaquina [21]	United Fruit Co	Colon, R. P.
October 4	William Green	Arrow Oil Co	Beaumont, Texas.	October 5	Flandre	French Line	Havre via wayports.

[21] Motor boat. * Other than ships passing through the Canal.

(Continued on page 140.)

Table I.—Classification of Cargo Passing Through the Panama Canal Showing Origin and Destination, Fiscal Year Ending June 30, 1928.—Continued from page 119.

ATLANTIC TO PACIFIC.

(Figures represent tons of 2,240 pounds.)

Commodity.	East coast of United States to West Coast of United States.	East coast of United States to west coast of Canada.	East coast of United States to West Coast of Central America.	East coast of United States to west coast of South America.	East Coast of United States to Philippine Islands.	East coast of United States to Far East.	East coast of United States to Australasia.	Cristobal, C. Z., to west Coast of United States.	Cristobal, C. Z., to west coast of Central America.	Cristobal, C. Z., to west coast of South America.	East coast of Canada to Australasia.	Europe to west coast of United States.	Europe to west coast of Canada.	Europe to west coast of Central America.	Europe to west coast of South America.	Europe to Australasia.	West Indies to west coast of United States.	East coast of South America to west coast of United States.	Miscellaneous.	Totals.
Aeroplanes	148		122	115	15														2	402
Agricultural implements	15,679		97	3,451	265	2,588	23,229		232	119	4,084	34	172	1,331	1,717	6,846			1,051	60,895
Ammonia	859			44	3,297	70,038	7,272					294							9,972	91,776
Ammunition	244						62									5				311
Asbestos	626			20		422					935	16	25		32				2,176	4,252
Asphalt	1,269	24	2	1,100	582	4,654	20,524			51		100			448	2,454			51,142	82,350
Automobiles	9,421		786	11,791	1,541	13,228	59,333	30	394	615	18,568	54	18	28	707	7,803			236	124,553
Automobile accessories	7,806		124	2,788	477	9,327	18,575	23	67	577	6,778		10	5	488	1,783			224	49,052
Bananas								20,118											24,498	44,616
Bark:																				
Quebracho																			128	128
Quillay										200						2				202
Barley	43			5						6			4							58
Beans	1,521			21		72	184	372		7	147	241	101	2	34	142		585	162	3,591
Blood and tankage	105											250	10					4,116		4,481
Bones and bone meal	813					136	124					4,209	114					5,758	2,214	13,368
Borax	495									29				2	128	398				1,052
Bricks	3,217			2,468		10,918	183					3,671	1,550		2,562	1,574			978	27,121
Burlap	847					4														851
Calcium carbide	1,051			585	50	194			118		682	52	100		291	123			605	3,851
Canned goods:																				
Fish	3,464	49	5	40		90	121		50	271	452	1,563	306	5	946	977			777	9,116
Fruit	2,316			192		107	380		40	65	83	138	96	16	186	223			620	4,462
Meat	1,240			265	6	69	136		149	148	22	26	40		90	523		3,613	1,312	7,639
Milk	309		2	1,874		36				29				3	109	139			377	2,878
Soup	17,378					28	45													17,451
Vegetables	13,474		92	72		440	603		31		8	196	26	4	143	66			228	15,383
Miscellaneous	20,205		87	521	1,859	334	1,266		144	648	3,186	728	81		40	600		2	506	30,207
Carbon black	511			133		2,457	307					122							125	3,655
Cement	15,178		137	17,493	171	1,571	2,159	15	166	982	5	28,028	4,184	28,539	160,694	6,588			14,122	280,032
Chalk												5,417	93		141					5,651
Charcoal	1,362			1,623								101	152							3,238
Chemicals	14,888		5	1,687	354	4,977	832	10	248	42	107	7,672	1,616	154	7,941	11,211			749	52,493

China and fire clay	1,100			7		1,284	62					7,581	180		132	109			30	10,485
Coal	31,488		2,006	16,186		2,991	5,582					5,614	6,237	4,100	70,935	15,802			669	161,610
Cocoa	847			64		446	527	485		181	257	257	28		13	7		3,102	430	6,644
Coconuts	129							325		20										474
Coffee	722			51		2	58	12,555	10	409	1	1,442	227		39	538	486	46,980	5,615	69,135
Coke	2,120			3,770								53,194	4,070		8,199	18,079			1,698	91,130
Cold storage:																				
Butter	326			14						10					47	15			1	413
Cheese	312			5						14		1,085	56	4	177	2			42	1,697
Lard	11,482			1,873		2	3		58	1,300				20	36				3	14,777
Meat	471			2								12		21				99	136	741
Miscellaneous	1,498			15		209					5	524	24		135	6			44	2,460
Confectionery	4,771			50		156	19					130	170			42			60	5,398
Copra	125																			125
Cork	785											586	42		109					1,522
Corn	75			23	33	435												23,291	473	24,330
Cotton	7,515		89	735		242,933	531		456	53		182	17		1,470				5,244	259,225
Creosote	19											46,696	68						8,899	55,682
Cyanide	293			8	50		101		164			221								837
Drugs	7,513		183	63	24	260	60				26	162	61	4	236	263			623	9,478
Dyes	40					5,385						69								5,494
Dyewoods	75					1,549										38				1,662
Earthenware	1,241		5	57		320			90	4		1,047	842		428	1,361			178	5,573
Explosives	664		49	244		40	378			2					1,371	793				3,541
Extract quebracho															31			641	1,955	2,627
Fertilizer	302		204			4,740			535			2,194				546		526	3,682	12,729
Flint pebbles						2,004				147		125	322		140	250			102	3,090
Flour	767	935		1,226	944	14,731	159		326	1,791	513	1,234	18		791	221		4	350	24,010
Fruits:																				
Dried	449			45				10	40			718	993		111	346	14		10	2,736
Fresh	239			504		85		15					85	60			122		810	1,920
Fuller's earth	5,133		70									414	70			200				5,887
Furniture	5,240		237	247		282	562	3		16	618	442	141	2	214		14		1,292	9,310
General	592,080	7,511	11,951	72,998	5,165	110,646	91,565	1,376	54,197	56,226	13,355	71,130	36,030	23,889	180,990	102,285	11	7,856	36,897	1,476,158
Glass and glasaware	22,871		143	313	47	773	1,500		136	340	16	17,177	4,060	46	5,680	5,597			2,735	61,434
Glue	69					104	87					37	76							373
Granite	865									500		390	172			18				1,945
Graphite	195			370		22	15								145					747
Guano	400								243							201		7,189	285	8,318
Hair	218										23	40						23		304
Hardwoods	6,130			18		312	1,832	58		37	60				416	361		58	18	9,300
Hats	20			15	6		4								268	308			10	631
Hay	274							57												331
Hemp	176							112				17			42					347
Hops	89														60	24				173
Horns and hoofs				17		82													476	575
Indigo						348				5			21						50	424
Ink	208			7		26	71				6								100	418
Jute	277		9						353	142		100	32	100	1,650	198		60		2,921
Leather	201	11	19	17		164		6			101	106	15		20	105			10	775
Lime	204					2,560						437	3		7					3,211
Linoleum	8,047			29		34	97					37				15			41	8,300

Table I.—Classification of Cargo Passing Through the Panama Canal Showing Origin and Destination, Fiscal Year ending June 30, 1928.—Continued.

ATLANTIC TO PACIFIC.—Continued.

(Figures represent tons of 2,240 pounds.)

Commodity.	East coast of United States to west coast of United States.	East coast of United States to west coast of Canada.	East coast of United States to west coast of Central America.	East coast of United States to west coast of South America.	East coast of United States to Philippine Islands.	East coast of United States to Far East.	East coast of United States to Australasia.	Cristobal, C. Z., to west Coast of United States.	Cristobal, C. Z., to west coast of Central America.	Cristobal, C. Z., to west coast of South America.	East coast of Canada to Australasia.	Europe to west coast of United States.	Europe to west coast of Canada.	Europe to west coast of Central America.	Europe to west coast of South America.	Europe to Australasia.	West Indies to west coast of United States.	East coast of South America to west coast of United States.	Miscellaneous.	Totals.
Liquors	330			11		121		5	1,562	208	10	401	12,184	25	2,923	10,944			2,919	31,643
Livestock	48			5		549	4			300		559	50		135	2			2,985	4,637
Lumber	18,941		110	4,183		3,090	1,999	8		203	918	1,003	1,131	16	324	1,040		146	290	33,402
Maize	50																	500	50	600
Malt	401			81					51	6			21	159	890					1,609
Manufactured goods:																				
Iron and steel	1,018,664	12,345	3,039	71,912	19,979	239,802	30,050	400	5,249	3,792	17,847	129,932	35,721	9,182	107,631	105,203			44,784	1,855,532
Machinery	71,508		826	29,678	4,643	29,335	17,624	47	1,474	640	266	1,318	2,673	372	26,591	26,599			1,740	215,334
Railroad material	27,058	500	4,199	37,976	1,892	64,307	2,010		843	943	230	4,758	730	2,249	29,611	10,655			600	188,561
Tinplate	48,475			1,437	1,360	20,606			65			1,680	2,257		951	519			12,256	89,606
Textiles	46,505		279	10,120	4,105	8,241	1,930	80	931	754	515	686	1,300	208	23,884	24,149			971	124,658
Miscellaneous	65,977	1,832	882	9,003	1,210	32,433	5,370	90	200	135	849	6,038	3,521		17,746	24,445		28	3,646	173,408
Marble	1,413			60						150		5,778	543		1,247				29	9,220
Matches	1,487								10			114		181	69	70			105	2,036
Metals:																				
Copper	1,004			15		340	25					1,657			7	23				3,071
Gold and silver	231			2		1,401			4											1,638
Iron	4,731	140		432	71	8,243	445		221	26		4,819	5,736	7	7,704	5,402			2,132	40,109
Lead	243			71	20	550	178		2				27		229	435			50	1,805
Scrap	2,566			350		44,909							340		3					48,168
Tin	25,954	446		2,151	352	13,356					107		1,243		60	2,912			7,423	54,004
Zinc	401					218			200			40	2		85	591				1,537
Other	904			497		3,436	154			22		152	199		1,701	400				7,465
Milk, powdered	30			149		3				7					7					196
Molasses	1,363																15,675			17,038
Musical instruments	90			205			107				103								25	530
Nitrates	422						137	275				9,648	457	2,216	96	150			5,442	18,843
Nuts	348											32	47			23		357	56	863
Oats	650			138		135	7			42			4						10	986
Oil:																				
Coconut	20					15													100	135
Cottonseed	766	30		165					13											974
Crude	12,470			495		16,871	1,261			129			683		558	20			30,883	63,370
Gas and fuel	5,391					12,562	10,172			16						9		18	13,475	41,643

Oil:—Continued:																				
Gasoline, benzine, and naphtha	2,534		110	5,731	5,669	137,080	124,744			477	5			100	205	2			16,572	293,229
Kerosene	852		1,828	60	5,962	106,152	30,866		5	3									3,242	148,970
Linseed	278														481	352		1,842		2,953
Lubricating and greases	45,437	14	131	11,916	2,931	66,273	36,815	3	157	283	166	372	1,013		1,749	922			1,686	169,868
Olive	533					45	45		51	7		1,667	67		1,642	4			185	4,246
Other	4,062			1,039		15,381	2,678		7	38		8,836	110		801	379			6,028	39,359
Vegetable	1,821			68		56	50			58		483	6	62	6,475	648			150	9,877
Wood	225					6														231
Ore:																				
Copper	627											2,140								2,767
Iron	178					200	150					2,031	9		503				16	3,087
Lead				368																368
Magnesite	52			518																570
Manganese	77											3,555								3,632
Tin	40					361										700				1,001
Zinc	120			294																414
Other	421										329	2,449	29			205			2,504	5,937
Paints and varnishes	5,789		121	500	57	268	394		270		874	503	51	15	1,161	3,763			1,254	15,020
Paper	56,755		218	1,161	138	6,480	9,874	8	615	297	31,691	29,810	579	750	17,371	14,288			13,228	183,263
Paper, pulp	70			51		459					32	9,033	250		406	655			150	11,106
Paper, roofing	1,367			35		329	19					70								1,820
Patent fuel														14,000	28,928	6,028				48,956
Peanuts	1,610																			1,610
Phosphates	10,772				2,159	149,435	6,886					678	1,079	760	2,109	1,528			23,420	198,826
Plaster	20						333				2,382			900						3,635
Porcelain	934								35	47	65	186	36		232	364			150	2,049
Potash	388											2,331	488			252			970	4,429
Rags	605											6,046	210		491					7,352
Rice	6,675			6,196		3,196				745		124	518	292	13,574					31,320
Rope	4,222		2	79		18						172	353	41	153					5,040
Rosin	7,554	14		1,521		26,189	605		114	457		22								36,456
Rubber:																				
Manufactured	10,613		28	662	528	556	1,257				1,546	30	155		255	956			43	16,629
Raw	819					43										13		1		876
Scrap	251																			251
Salt	2,780					259					139	939	1,158		35	23,729			6,335	35,374
Saltpetre												3,885								3,885
Sand	7,956					57						19,565	195							26,873
Seeds:																				
Bird																		993		993
Cotton						25									60					85
Grass											40	40	40			127				247
Other	11						5				2	363	202		129	8		2,110	180	3,001
Shells	18,038	1,127		1,226		4,004							4,108							28,503
Silk	30			63		10	5		10				12		277	664				1,071
Silversand												42,086	2,000			3,000				47,086
Skins and hides	248					46			10			9						2,926	82	3,321
Slag	500						950					11				83,336				84,797
Slate	6,302					133						11			10	100				6,556

(Continued on page 134.)

Table II.—Classification of Cargo Passing Through the Panama Canal

PACIFIC TO

(Figures represent tons of 2,240 pounds.)

Commodity.	West coast of United States to east coast of United States.	West coast of United States to West Indies.	West coast of United States to Cristobal, C. Z.	West coast of United States to Europe.	West coast of United States to east coast of South America.	West coast of Canada to east coast of United States.	West coast of Canada to east coast of Canada.	West coast of Canada to Europe.
Aeroplanes			29					
Agricultural implements	418	6	5					
Alfalfa	1,667			35				
Alfalfa meal	3,243			175				
Asphalt	879	11	97	31,422	59			
Automobiles	792	4	50	58	9		3	5
Automobile accessories	611	3	20					
Balsam	65							
Bamboo	171							
Bananas								
Bark:								
Cascara	91			360				37
Peruvian				1				
Quillay								
Other	18							
Barley	309			183,543				
Beans	70,840	3,842	1,572	2	193			40
Beeswax	1							
Borax	15,571		9	50,850				
Bran	26			27				
Burlap	2,466		13	32				
Camphor	1,486							
Canned goods:								
Fish	118,549	789	917	12,219	82	460	4,436	18,194
Fruit	286,795	817	1,262	126,927	3,050	929	798	3,438
Meat	3,802		22	102				30
Milk	9,331	100	286	801	2			526
Vegetables	60,481	552	646	787	35		11	57
Miscellaneous	63,287	1,012	386	10,386	284	50	428	303
Carbon black	395			1				
Celite filtercel	7,431		30	1,277				
Cement	862				19			
Charcoal	1,145							
Chemicals	2,442	42	22	149				
China and fireclay	247			47				
Coal								
Cocoa	446		1	215				
Cocoa leaves								
Coconuts	4,066		56					
Coffee	1,042	40	211	519			8	
Cold storage:								
Beef	12							
Butter	80		29					
Cheese	201						7	20
Eggs	385		183	145	1,240			82
Fish				582				53
Lard	9		284					
Meat	292							
Mutton								
Other	513		202	893				1,210
Confectionary	19		6					
Copra	16			7,230				
Corn								1,592
Cotton	26,355		53	15,398				
Cottonseed oil cake				4,688				
Cottonseed meal				2,270				
Drugs	229							
Dyes								
Dyewoods				96				200
Earthenware	874	6					5	
Eggs, dried	157							
Explosives	287				482		3	
Fertilizer	65							
Fishmeal				1,858				4,197
Flour	63,531	396	1,304	25,866	979			10,688
Fruit:								
Dried	137,444	334	479	126,102	150			673
Fresh	4,526		111	65,786	228			3,227
Fuller's earth	21							
General	126,235	2,205	2,912	37,200	1,778		1,236	13,940
Glass and glassware	2,795		19	250	122			

Showing Origin and Destination, Fiscal Year Ending June 30, 1928.

ATLANTIC.

(Figures represent tons of 2,240 pounds.)

West coast of South America to east coast of United States.	West coast of South America to east coast of Canada.	West coast of South America to Cristobal, C. Z.	West coast of South America to Europe.	West coast of Central America to Cristobal, C. Z.	West coast of Central America to Europe.	Far East to east coast of United States.	Australasia to east coast of United States.	Australasia to Europe.	Philippine Islands to east coast of United States.	Miscellaneous.	Totals.
9			1								38
		1	86				1				517
										12	1,714
											3,418
			4								32,472
7		1	5		2		2	26	13	17	994
		1					5				640
599		7		28	12	30				11	752
						1,711					1,882
4				1,368						8,780	10,152
		14	2			279					733
19		6	126	3						1	156
286		14	2,704								3,004
31			147								196
			51,659				15	1,605		131	237,262
11,128		1,139	12,081	18	300	2,499		1,600		21,914	127,168
66		44	35								146
166		66	20,170							101	86,933
			20,209					100			20,362
											2,511
						521					2,007
						311		6		22,282	178,245
		25	79			30				10,274	434,424
			53			61		874		144	5,088
										47	11,093
		6	215			107		9		193	63,099
		3						808		2,897	79,844
											397
											8,738
27											908
											1,145
157			22			302				6	3,142
											294
			100					2			102
3,919		13,642	4,543	2			565	1,329			24,662
68		60	11								139
		252									4,374
10,515		44,652	3,873	33,912	34,856	28		826		2,380	132,862
							1,265	20,358		495	22,130
		4					839	60,570		1,081	62,603
			10				1,031	64,224			65,493
								61			2,096
											1,112
											293
			4				10	2,638		85	3,029
							812	121,980		314	123,106
							772	4,461		1,039	9,090
											16
9		2				6,230	3,140	40,499	25,987		83,143
			3,591			163				603	5,949
9,973		2,914	36,084	34	2	1,055		257		3,599	95,724
31		593	29,473							146	34,931
											2,270
			31			20					280
9			6		15	10	5				45
			14	964	1,103	174				2,933	5,484
											885
						85					242
						332	9			344	1,457
											65
											6,055
				13		12	155	150		9,097	112,191
8			20							7,434	272,644
1,288			62			13		17,643		573	93,457
											21
2,255		5,820	11,556	966	2,458	40,168	4,756	10,342		16,916	280,743
						228		5		3	3,422

Table II.—Classification of Cargo Passing Through the Panama Canal

PACIFIC TO

(Figures represent tons of 2,240 pounds.)

Commodity.	West coast of United States to east coast of United States.	West coast of United States to West Indies.	West coast of United States to Cristobal, C. Z.	West coast of United States to Europe.	West coast of United States to east coast of South America.	West coast of Canada to east coast of United States.	West coast of Canada to east coast of Canada.	West coast of Canada to Europe.
Glue	199							
Graphite								
Guano	25			56				450
Gum:								
Kauri								
Yucca								
Other								
Hair	893			22				110
Hardwoods	1,042		52	358	86			941
Hats	25							
Hay	5,084		53	15				
Hemp	9,774			30				
Honey	930			2,127				
Hops	1,143		4				49	
Horns and hoofs				97				
Indigo			1					
Infusorial earth	131			895	79			
Ink	10							
Iodine								
Ivory nuts								
Jute	1,176							
Kapok	84							
Leather	238							
Linoleum	504							
Liquors	75			69				373
Livestock								
Lumber	2,572,373	32,739	2,061	286,819	20,076	472,637	100,178	107,490
Manufactured goods:								
Iron and steel	6,166	56	148	460	61			1,000
Machinery	6,487	425	149	610	1,421			57
Railroad material	720			5				
Textiles	2,581	123	130	9	26			
Miscellaneous	10,322	47	109	1,299	117			72
Marble	242							
Matches	94							
Metals:								
Antimony	350							
Copper	105,048			74,496				3,248
Gold and silver								
Iron	629							
Lead	1,932		15	5,090	50			67,219
Scrap	4,188			6,105				74
Tin	58			509				1,550
Zinc	788		10	2,720				33,021
Other	3,227			1,341				2,470
Milk, powdered	4,624			132				137
Molasses								
Nitrates	200							
Nuts	3,059	9	5	382				
Oats	21		33		4			6,250
Oil:								
Coconut	14		4					
Cottonseed	20							
Crude	1,167,277	32,834	103,030	25,907	7,000			
Gas and fuel	716,096	112,704	136,397	199,209	81,673			
Gasoline, benzine, and naphtha	1,615,933	37,889	34,130	572,210	18,982			
Kerosene	46,079		205		6,128			
Lubricating and grease	73,013		316	11,337	11			
Olive	2							
Vegetable	234	3		76				
Whale				2,800				105
Wood	432			257				
Other	824	2		959				
Ores:								
Antimony	175							
Chrome								
Copper	6,142			2,661				
Gold and silver								
Iron	49			500				
Lead								1,394

Showing Origin and Destination, Fiscal Year Ending June 30, 1928.—Continued.

ATLANTIC.—Continued.

(Figures represent tons of 2,240 pounds.)

West coast of South America to east coast of United States.	West coast of South America to east coast Canada.	West coast of South America to Cristobal, C. Z.	West coast of South America to Europe.	West coast Central America to Cristobal, C. Z.	West coast of Central America to Europe.	Far East to east coast of United States	Australasia to east coast of United States.	Australasia to Europe.	Philippine Islands to east coast of United States.	Miscellaneous.	Totals.
20											219
						1,060					1,060
3,300		5	6,160								9,996
							1,550	1,181		50	2,781
							248				248
							199	55			254
		1	31			47	1	4			1,109
728		128	103	3,122	556	132	2,277	384	117	552	10,578
39		160	18			48		154		312	756
			286			120					5,558
			579	5		714	2,478	8,819	431	550	22,380
			1,440	58	77			614		60	5,306
											1,196
		12	283	20	9			6			427
				25							26
											1,105
											10
525		304	570								1,399
3,901		15,894	6,105								25,900
			20			166				67	1,429
142		15	4								245
		31	42			4	11	34			360
											504
		4	66					1		2	590
2			4			18					24
89				174	130	755	500	882	2,151	74,778	3,673,832
											242
36		20	12	6		275		10		159	8,409
85		13	99	5	25		71	34		197	9,679
											725
				2		2,290				7	5,168
30		352	30	5		2,182	69			220	14,854
						12					106
			301			1,118		600			2,369
70,446		31,011	158,932				200				443,381
1,235		51	38	25	3					7	1,359
		14								12	655
4,438		14	1,212					5,855		128	85,953
677			232				15	786		73	12,150
4			22,579			200	377	978		85	26,340
			5,787				15	1,333		770	44,444
1,190		8	956				214	626			10,032
610								7,413			12,916
										8,106	8,106
1,021,744	7,900	74,050	1,290,809							170,869	2,565,572
173		100				335				4	4,067
1,300			53,384					1,243		2,153	64,388
		31				1,170			28,576	67	29,862
32		355	2,763							64	3,234
216,366	236,503		27,663			22				10,663	1,827,265
	6,503									62,446	1,315,028
			53,496			14				42	2,332,696
										6,359	58,771
			160			355		124			85,316
1		107	819	9		7,094	30				8,373
			800				17,850	1,600			23,155
						2,211	66			461	3,427
197			720	3		12,712		7		203	15,627
603			1,446			699		2,500			5,423
							6,350	8,556			14,906
34,498		94	12,595			168	435				56,593
704		27	429	2	3					42	1,207
1,395,136		16	175				4,614				1,400,490
645		47	4,298					1			6,385

Table II.—Classification of Cargo Passing Through the Panama Canal

PACIFIC TO

(Figures represent tons of 2,240 pounds.)

Commodity.	West coast of United States to east coast of United States.	West coast of United States to West Indies.	West coast of United States to Cristobal, C. Z.	West coast of United States to Europe.	West coast of United States to east coast of South America.	West coast of Canada to east coast of United States.	West coast of Canada to east coast of Canada.	West coast of Canada to Europe.
Ores:—Continued:								
Magnesite	10,738							
Manganese	3,774							
Tin	140							
Zinc	75			4,338				7,270
Other	690			4,163				1,672
Paint	1,838		13	40				
Paper	38,333	1,376	326	133	1,258	4,269	28	
Paper, pulp	13,134					1,600		
Peanuts	2,719		28	356				
Peas	3,049	47	5	77			36	4
Phosphates	115			15				
Plaster	66							
Pollards								
Porcelain	4,730	20	38				229	
Quicksilver	29							
Rags	4,242			54				
Rice	2,123	1,588	73	1,033	383		735	115
Rope	1,093		46					
Rosin								
Rubber:								
Manufactured	430		10	134				4
Raw								
Scrap	2,275			1,763			3	156
Rye				1,999				4,443
Salt	661		48					
Sand				35				
Seeds:								
Cotton	44			344				
Grass	881							
Hemp	697							
Other	1,784			212				
Shells	211			175				
Silk	2,414	1	21					
Skins and hides	25,091		12	161		260		20
Soap	576		8					
Sugar	72,944				1,100			
Syrup	19							
Talc	1,981	10	30					
Tallow	5,211	44	79	45	1	6		
Tartar	66							
Tea	570		127				1,090	
Tobacco	669							
Toys	290		16		3			
Vegetables	993		707		14	26		
Waste	2,073							
Wax	67		197					
Wheat	7,849	136	100,873	1,015,160	570	1,452		1,876,105
Wine	1,300							
Wool	47,571			881				70
Totals	7,657,300	230,212	390,725	2,938,979	147,755	481,689	109,283	2,174,809

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season.
	Average.	Maximum.	Minimum.	Average temperature. Degrees F.
Cristobal (between docks 8 and 9)	1018	1020	1013	84.0
Balboa (dock 18)	1011	1021	1005	83.0

(NOTE—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Showing Origin and Destination, Fiscal Year Ending June 30, 1928.—Continued.

ATLANTIC.—Continued.

(Figures represent tons of 2,240 pounds.)

West coast of South America to east coast of United States.	West coast of South America to east coast Canada.	West coast of South America to Cristobal, C. Z.	West coast of South America to Europe.	West coast of Central America to Cristobal, C. Z.	West coast of Central America to Europe.	Far East to east coast of United States.	Australasia to east coast of United States.	Australasia to Europe.	Philippine Islands to east coast of United States.	Miscellaneous.	Totals.
											10,738
5,200			500				9,500	130			19,104
10			57,214				7				57,371
			8,895					7,688			28,266
2,837		225	16,491			454	611	7,786			34,929
								32		11	1,934
						35				3,899	49,657
											14,734
						9				3	3,115
2,141		77	3,096		5,152	158	402	3,926		1,853	20,023
		6				13		15,350			15,499
											66
			4,468								4,468
						5,714					10,731
											29
						1,131	2				5,429
		99	13			3,841		7,500		30,253	47,756
			21				34			25	1,219
3											3
						8	7	31			624
357		529	17	11	2		137	106		4	1,163
							86	25		26	4,335
			808								7,250
						21					730
											35
293		450	4,327					247			5,705
							119	1,144		55	2,199
		25	1,088			95	87				1,992
23		6	1,460			2,017	349	91		33	5,975
				77	23	36	916	1,107	3		2,548
			2		4	713		40			3,195
3,121		2,019	4,553	831	94	3,528	25,906	7,204		787	73,587
6			5								595
435	2,313	1,131	162,281	1,271	4,958	2	20		315,005	16,321	577,781
											19
											2,021
						27	1,545	18,348		414	25,720
26			70								162
			3			7,815		14		2	9,621
5						211		1			886
						119					428
5,518		132	196			5				2,343	9,934
						713					2,786
35		34	18			472					823
		9	407			280		4,215		28,828	3,035,884
		28	3,589							52	4,969
3,405		315	6,794			7,320	15,998	83,405		2,172	167,931
2,822,886	253,219	197,215	2,128,737	42,959	49,785	123,057	106,678	552,563	372,283	540,441	21,320,575

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Postal Address of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

Table I.—Classification of Cargo Passing Through the Panama Canal Showing Origin and Destination, Fiscal Year Ending June 30, 1928.—Continued from page 127.

ATLANTIC TO PACIFIC.—Continued.

(Figures represent tons of 2,240 pounds.)

Commodity.	East coast of United States to west coast of United States.	East coast of United States to west coast of Canada.	East coast of United States to west coast of Central America.	East coast of United States to west coast of South America.	East coast of United States to Philippine Islands.	East coast of United States to Far East.	East coast of United States to Australasia.	Cristobal, C. Z., to West Coast of United States.	Cristobal, C. Z., to west coast of Central America.	Cristobal, C. Z., to west coast of South America.	East coast of Canada to Australasia.	Europe to west coast of United States.	Europe to west coast of Canada.	Europe to west coast of Central America.	Europe to west coast of South America.	Europe to Australasia.	West Indies to west coast of United States.	East coast of South America to west coast of United States.	Miscellaneous.	Totals.
Soap	23,384			1	778	1,119	102		94	424		99	74		628	117			1,275	28,086
Soda	4,400			324	53	1,731				4		76	25		120	204			24	6,961
Soda-ash	10,641		110			955					50		80		2,388					14,224
Soda bicarbonate	696			32	100	612			13											1,363
Soda, caustic	5,614			137	382	12,514	73		115	16					83	35			100	19,069
Starch	1,082				100	36	10					2,618							295	4,141
Sugar	3,466			2,819		382			150	117			200			51	25,068		12,698	44,951
Sulphur	80,588	19,412		169		8,805	95,869		22				331		520				1,541	207,257
Syrup	1,296			21		158	215					55								1,745
Tallow	11								15											26
Tar	8,435			15							4	18			11					8,483
Tartar												834								834
Tea	264			8			1			123		288	356		1,878	89			340	3,347
Tobacco	19,524		18	107	812	41,279	13,338	8	50	240	414		12		141	1,624	451		925	78,943
Toys	455											610	110							1,175
Turpentine	1,469	30		230		143	2,332			15					3					4,222
Vegetables	201			11					1			43	36			300				592
Waste	1,014			77		84	60					4								1,239
Wax	1,473		22	6,867		13,876	6		194	1,433			188		1,228	93			7	25,387
Wheat	12			226						75				15	16					344
Wines	216							19	429	75		85	2,399	272	4,225	2,645			197	10,562
Wool	269					25							6		247				2	549
Zinc oxide	338											38	56							432
Totals	2,576,399	44,420	28,347	356,929	68,187	1,613,898	637,703	36,513	71,429	77,293	108,622	577,133	148,171	90,157	761,567	549,959	41,841	112,824	408,742	8,310,134

Tanker Traffic Through the Panama Canal in September, 1928.

During the month of September, 1928, 89 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 295,720, on which tolls of $439,354.98 were collected. Cargo amounted to 491,645 tons. In point of net tonnage, tanker traffic for the past month showed a decrease of 34 per cent under the same traffic for the corresponding month a year ago, while cargo tonnage decreased 30 per cent under the cargo tonnage of September, 1927.

Tank ships comprised 18.2 per cent of the total commercial transits through the Canal during the month; made up 21.6 per cent of the total Panama Canal net tonnage; were the source of 20.8 per cent of the tolls collected; and carried 20.7 per cent of the total cargo in transits through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of September, 1928, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for September, 1927:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	17	93,328	$67,196.16	.....
Danzig	1	6,338	4,563.36	.....
French	1	5,050	3,636.00	.....
German	1	4,340	3,124.80	.....
Norwegian	1	5,071	3,651.12	.....
United States	20	121,666	89,122.29	9,015
Totals, September, 1928	41	235,793	171,293.73	9,015
Totals, August, 1928	46	252,089	185,213.15	21,702
Totals, July, 1928	49	264,688	195,784.18	18,521
Totals, September, 1927	69	389,602	286,693.74	34,202
Pacific to Atlantic.				
Belgian	1	4,976	5,710.00	9,500
British	10	54,168	56,923.75	104,073
Danish	1	5,623	5,837.50	10,800
Danzig	2	12,648	13,227.50	23,114
German	2	8,914	9,492.50	17,082
Norwegian	2	8,065	8,648.75	15,372
Swedish	1	4,497	4,792.50	8,141
United States	29	161,036	163,428.75	294,548
Totals, September, 1928	48	259,927	268,061.25	482,630
Totals, August, 1928	49	268,675	273,926.30	474,011
Totals, July, 1928	46	241,854	246,324.35	443,962
Totals, September, 1927	62	360,338	368,348.52	662,840

Of the tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for September, 1927:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles:				
September, 1928	28	161,006	115,924.32	.....
August, 1928	34	187,964	135,334.08	.....
July, 1928	33	176,648	129,046.42	5,831
September, 1927	56	325,760	235,356.06	.....
From Los Angeles:				
September, 1928	35	187,938	191,746.25	345,357
August, 1928	32	170,030	173,221.25	301,968
July, 1928	39	209,472	212,735.30	384,358
September, 1927	54	311,510	319,036.25	579,228

Traffic by Nationality for September, 1928.

The following tabulation shows the commercial traffic through the Canal during the month of September, 1928, classified according to nationality of vessel by direction of transit, and the combined traffic in both directions, with corresponding totals for September, 1927, and 1926:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian	1	4,792	4,142	6,512	4,038	$3,450.24	
British	90	459,044	349,495	571,534	[1] 351,737	391,150.35	235,682
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,485
Colombian	3	2,476	2,118	3,563	2,186	2,638.40	2,399
Danish	1	5,285	4,207	6,636	4,236	5,258.75	2,049
Danzig	1	6,338	5,236	8,956	5,041	4,563.36	
Dutch	7	29,949	21,996	35,912	21,696	27,495.00	15,475
French	4	19,796	15,560	25,343	15,222	17,641.00	6,984
German	15	52,844	38,446	63,946	38,754	46,479.80	35,315
Greek	3	11,369	9,949	13,373	8,419	8,276.04	
Italian	3	19,774	14,159	26,132	15,702	15,877.53	1,515
Japanese	6	28,901	25,756	37,488	25,663	31,657.00	38,330
Norwegian	12	57,038	44,584	71,073	43,591	52,861.97	25,814
Panaman	1	2,606	1,384	3,644	2,594	1,730.00	2,503
Peruvian	2	4,488	2,998	6,772	3,596	3,728.55	1,898
Spanish	1	2,827	2,459	4,349	2,565	3,073.75	379
Swedish	4	15,349	11,671	37,236	13,481	11,651.49	4,755
United States	97	483,481	372,214	603,226	371,142	425,286.40	327,915
Yugoslav	1	4,570	3,271	5,271	3,296	4,088.75	6,156
Totals, September, 1928	253	1,215,633	933,111	1,548,631	936,935	1,061,240.88	709,654
Totals, September, 1927	295	1,402,155	1,092,315	1,774,119	1,090,285	1,183,757.81	594,949
Totals, September, 1926	236	1,149,723	892,415	1,445,142	892,143	1,005,180.19	650,259

[1] Includes naval vessel of 10,355 displacement tons.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Argentinian	[1] 1	(1)	(1)	(1)	(1)	[1] $1,274.50	
Belgian	2	11,187	9,090	14,268	8,001	11,362.50	19,450
British	[2] 57	281,076	215,783	350,676	217,145	[2] 272,113.20	366,482
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	5,244
Colombian	4	2,068	1,746	2,816	1,793	2,022.10	493
Danish	5	24,601	18,712	30,581	19,243	23,390.00	42,440
Danzig	2	12,648	10,582	17,896	10,091	13,227.50	23,114
Dutch	5	17,857	11,436	19,179	11,699	14,295.00	24,275
Finnish	2	4,023	3,996	4,357	3,783	4,827.60	7,300
French	5	24,428	18,896	29,383	18,098	23,620.00	34,419
German	19	58,153	42,761	71,502	42,789	53,299.60	82,626
Italian	5	26,940	20,260	34,134	20,740	25,325.00	33,126
Japanese	7	33,816	29,115	42,091	28,417	36,393.75	44,612
Norwegian	6	21,794	16,659	27,952	16,582	20,657.88	39,772
Panaman	2	2,639	1,417	2,494	1,417	1,769.60	1,022
Peruvian	2	5,364	2,504	7,922	3,941	3,130.00	4,315
Spanish	1	3,729	2,960	5,087	3,000	3,700.00	1,750
Swedish	4	15,366	11,665	28,191	13,851	14,581.25	35,679
United States	101	515,601	406,399	658,576	405,022	507,496.45	811,665
Yugoslav	3	13,425	10,537	16,733	10,601	13,171.25	25,573
Totals, September, 1928	234	1,079,420	837,984	1,371,178	840,189	1,049,989.68	1,603,357
Totals, September, 1927	245	1,130,787	892,102	1,450,542	888,536	1,110,674.53	1,802,804
Totals, September, 1926	210	1,037,081	814,010	1,325,836	815,892	1,014,446.23	1,589,288

[1] Naval vessel of 2,549 displacement tons.

[2] Includes naval vessel of 5,000 displacement tons.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Argentinian	[1] 1	(1)	(1)	(1)	(1)	[2] $1,274.50	.....
Belgian	3	15,979	13,232	20,780	12,039	14,812.74	19,450
British	[2] 147	740,120	565,278	922,210	468,882	[2] 663,263.55	602,164
Chilean	2	9,410	6,932	14,620	7,952	8,665.00	7,729
Colombian	7	4,544	3,864	6,409	3,979	4,660.50	2,892
Danish	6	29,887	22,919	37,217	23,479	28,648.75	44,489
Danzig	3	18,986	15,818	26,852	15,132	17,790.86	23,114
Dutch	12	47,806	33,432	55,091	33,395	41,790.00	39,750
Finnish	2	4,023	3,996	4,357	3,783	4,827.60	7,300
French	9	44,224	34,456	54,726	33,320	41,261.00	41,403
German	34	110,997	81,297	135,448	81,543	99,779.40	117,941
Greek	3	11,369	9,949	13,373	8,419	8,276.04	.....
Italian	8	46,714	34,419	60,266	36,442	41,202.53	34,641
Japanese	13	62,717	54,871	79,579	54,080	68,050.75	82,942
Norwegian	18	78,832	61,243	99,025	60,173	73,519.85	65,586
Panaman	3	5,245	2,801	6,138	4,011	3,499.60	3,525
Peruvian	4	9,852	5,592	14,694	7,537	6,858.55	6,213
Spanish	2	6,556	5,419	9,436	5,565	6,773.75	2,129
Swedish	8	30,715	23,336	65,427	27,332	26,232.74	40,434
United States	198	999,082	778,613	1,261,802	776,164	932,782.85	1,139,589
Yugoslav	4	17,995	13,808	22,004	13,897	17,260.00	31,729
Totals, September, 1928	487	2,295,053	1,771,095	2,909,454	1,777,124	2,111,230.56	2,313,011
Totals, September, 1927	540	2,532,942	1,984,417	3,224,661	1,978,821	2,294,432.34	2,397,753
Totals, September, 1926	446	2,186,804	1,706,425	2,770,978	1,708,035	2,019,626.42	2,239,547

[1] Naval vessel of 2,549 displacement tons. [2] Includes 2 naval vessels having a total of 15,355 displacement tons.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending October 6, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Grootendijk	Holland-American Line	.....	September 23..	.....	20
Pastores	United Fruit Co	September 23..	September 23..	11	268¾
Rhodopis	Hamburg-American Line	September 23..	September 23..	28½	45
Osiris	Hamburg-American Line	September 23..	September 23..	½	(2)
Santa Cecelia	Grace Line	September 23..	September 23..	23	(2)
Cartago	United Fruit Co	.....	September 24..	.....	322
Colombia	Panama Mail S. S. Co	September 23..	September 24..	609	220
Cid	Pacific Steam Navigation Co	September 23..	September 24..	199	50
Jamaica	Pacific Steam Navigation Co	September 23..	September 29..	151	869
Santa Elisa	Grace Line	September 24..	September 24..	(1)	200
William M	R. Feuillebois	September 24..	September 24..	(1)	25
Pacific Shipper	Furness, Withy & Co	September 24..	September 26..	(1)	318
Lorigo	Pacific Steam Navigation Co	September 24..	September 26..	58	147½
Axel Johnson	Johnson Line	September 25..	September 25..	(1)	560
Annie Johnson	Johnson Line	September 25..	September 26..	307	26
Drechtdijk	Holland-American Line	September 25..	September 26..	199½	117
Ulua	United Fruit Co	September 25..	September 27..	747	81½
Mayari	United Fruit Co	September 25..	September 27..	838	1,293
Virgilio	Italian Line	September 26..	September 28..	13	741
Saramacca	United Fruit Co	September 26..	September 27..	793	126
Baralt	Royal Netherlands S. S. Co	September 26..	September 29..	447	172
Ucayali	Peruvian Line	September 26..	September 30..	2,054	(2)
Suriname	United Fruit Co	September 27..	September 27..	57	74
Cristobal	Panama Railroad S. S. Line	September 27..	.....	5,000	.....
Bowden	United Fruit Co	September 27..	September 27..	3	(2)
Zacapa	United Fruit Co	September 27..	September 28..	743	308
San Jose	United Fruit Co	September 27..	September 29..	1,164	57
Finn	Colombian Transport Co	September 27..	September 28..	35	(2)
Mineola	N. O. & S. A. S. S. Co	September 27..	September 28..	64	178
Galicia	Hamburg-American Line	September 27..	September 28..	293	145
Virginia	Standard Fruit Co	September 27..	September 28..	313	5
Salvador	Pacific Steam Navigation Co	September 27..	.....	319	.....
Macabi	United Fruit Co	September 27..	September 29..	½	444
Orbita	Pacific Steam Navigation Co	September 28..	September 28..	10	34½
Utacarbon	Union Oil Co	September 28..	September 29..	11,000	(2)
Parismina	United Fruit Co	September 29..	.....	398	.....
Bowden	United Fruit Co	September 29..	September 29..	(1)	334

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged.	Laded.
				Tons.	*Tons.*
Linda S.	R. Feuillebois	September 29..	September 29..	(1)	50
Virginia	Standard Fruit Co	September 29..	September 29..	(1)	523
Dakotian	Leyland Line	September 29..	September 29..	(1)	150
Gracia	Donaldson S. S. Line	September 29..	September 30..	(1)	323
Counsellor	T. & J. Harrison	September 30..		680	
Ulua	United Fruit Co	September 30..	September 30..	15	354
Polarland	Estrada G. Hermanos	September 30..		2	
Amsterdam	Royal Netherlands S. S. Co	September 30..		355	
Sangro	Anglo-Saxon Petroleum Co	September 30..		7,343	
Equatore	Italian Line	September 30..		117	
Negada	Hamburg-American Line	September 30..		178	
Carolyn	Grace Line	September 30..		1	
Cristobal	Panama Railroad S. S. Line		October 1		3,305
Parismina	United Fruit Co		October 1		229
Carolyn	Grace Line		October 1		233
Atrato	Colombian Transport Co		October 1		87
Amsterdam	Royal Netherlands S. S. Co		October 1		110
Negada	Hamburg-American Line		October 1		178
Equatore	Italian Line		October 1		303
Maravi	United Fruit Co	October 1	October 2	1,366	112
Alkmaar	Royal Netherlands S. S. Co	October 1	October 2	55	178
Toloa	United Fruit Co	October 1	October 3	6¾	57
Teno	Chilean Line	October 2	October 2	10	(2)
Golden Gate	Scandinavian So.-Pacific S. S. Co	October 2	October 2	(1)	11
West Mahwah	McCormick S. S. Line	October 2	October 2	143	(2)
Ucayali	Peruvian Line	October 2	October 3	(1)	230
Coppename	United Fruit Co	October 3	October 4	774	53
Santa Marta	United Fruit Co	October 3	October 4	714	460
Flandre	French Line	October 3	October 5	376	547
Pensylvanie	French Line	October 3	October 5	159	261
Saramacca	United Fruit Co	October 4	October 4	45	109
Santa Barbara	Grace Line	October 4	October 4	(1)	14
Laguna	Pacific Steam Navigation Co	October 4	October 5	(1)	196
Oranian	Leyland Line	October 4	October 5	909	(2)
Salvador	Pacific Steam Navigation Co		October 5		1,128
Erfurt	North German Lloyd	October 4	October 5	100	1,314
Favorita	Standard Fruit Co	October 4	October 5	632	⅔
Minnesota	French Line	October 4	October 5	750	(2)
Limon	United Fruit Co	October 4	October 5	915	49
William Green	Huasteca Petroleum Co	October 4	October 6	10,900	(2)
Aachen	North German Lloyd	October 5	October 6	18	(2)
Agwidale	Mallory & Co	October 5		600	
Cerigo	Hamburg-American Line	October 5		833	
Cali	North German Lloyd	October 5		219	
Heredia	United Fruit Co	October 6		445	
Favorita	Standard Fruit Co	October 6	October 6	(1)	546
Alvarado	Pacific Steam Navigation Co	October 6		175	
Smaragd	United Fruit Co	October 6	October 6	(1)	546
Cauca	National Navigation Co		October 6		466

(1) No cargo discharged. (2) No cargo laded.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

New Motor Ships for Westfal-Larsen Line.

It is reported that the Westfal-Larsen Line, which is operating a service between the west coast of North America and the east coast of South America, with transits through the Canal approximately once a month of vessels on the northward voyage, has ordered the construction of three motor ships, to be placed in this service.

The new ships are to be 14-knot speed, 9,000 tons capacity, and equipped with space for 1,500 measurement tons of refrigerated cargo in each vessel. They are to be ready for service in August, October, and November in 1929, and will replace the steamers *Evanger*, *Hardanger*, and *Leikanger*. Accommodations are to be arranged for about 10 or 12 passengers.

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 123.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 6	Favorita	Standard Fruit & S. S. Co	San Blas, R. P.	October 5	Oranian	Leyland Line	Port Limon, Costa Rica.
October 6	Heredia	United Fruit Co	New Orleans via Habana.	October 5	Favorita	Standard Fruit & S. S. Co	San Blas, R. P.
October 6	Smaragd	United Fruit Co	Perme, R. P.	October 6	William Green	Arrow Oil Co	Aruba, D. W. I.
October 6	Anachuelma [21]	United Fruit Co	Colon, R. P.	October 6	Anachuelma [21]	United Fruit Co	Colon, R. P.
October 6	Inapaquina [21]	United Fruit Co	Colon, R. P.	October 6	Inapaquina [21]	United Fruit Co	Colon, R. P.

[21] Motor boat.

PORT OF BALBOA.

September 30	Epoca [22]	Grace Line	Buenaventura, Colombia.	October 1	Epoca [22]	Grace Line	Talara, Peru.
October 2	San Luis [23]	Chiriqui Land Co	Pto. Armuelles, R. P.	October 3	A. B. de O'barrio [23]	Pacific Fruit Co	Bayano River, R. P.
October 3	A. B. de O'barrio [23]	Pacific Fruit Co	Bayano River, R. P.	October 3	Almirante [23]	Isthmian Land & Fruit Co	El Real, R. P.
October 3	Bessy [23]	Isthmian Land & Fruit Co	El Real, R. P.	October 3	Dos Hermanos [23]	A. Valdez	Bayano River, R. P.
October 3	Almirante [23]	Isthmian Land & Fruit Co	El Real, R. P.	October 5	Dixie [25]	Amador Juan Diaz	Panama Bay, R. P.
September 3	Dos Hermanos [24]	A. Valdez	Bayano River, R. P.	October 6	Cricamola [26]	Chiriqui Land Co	Pto. Armuelles, R. P.
October 3	Dixie [25]	Amador Juan Diaz	Panama Bay, R. P.	October 6	Romulus	Latin American Line	Antofagasta, Chile.
October 4	Romulus	Latin American Line	Seattle, Wash.	October 6	Deroche	Union Oil Co. of California	Los Angeles, Calif.
October 5	Cricamola [26]	Chiriqui Land Co	Pto. Armuelles, R. P.				
October 5	Deroche	Union Oil Co. of California	Los Angeles, Calif.				
October 6	Craftsman [27]	R. J. McArdle Contracting Co.	Buenaventura, Colombia.				

[22] Motor ship. [23] Motor schooner. [24] Motor schooner and barge. [25] Launch and barge. [26] Motor yacht. [27] Tug.

* Other than ships passing through the Canal.

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OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., October 17, 1928. No. 11.

New Governor of Panama Canal.

Col. Harry Burgess, Engineer Corps, United States Army, was sworn into the office of Governor of The Panama Canal in the morning of October 16, 1928, his appointment having been made by the President of the United States, subject to confirmation by the Senate, to succeed Brig. Gen. M. L. Walker, upon the expiration of General Walker's term of four years. Colonel Burgess is the fifth Governor, and, as has been the case with all Governors except General Goethals, the first, who was previously Chairman and Chief Engineer of the Isthmian Canal Commission, has served four years as Engineer of Maintenance before succeeding to the Governorship.

The retiring Governor, General Walker, issued the following statement under date of October 16, addressed to all employees of The Panama Canal and Panama Railroad:

I am to-day severing my connection with The Panama Canal and the Panama Railroad Company. I desire to express to you my sincere appreciation of the loyal and efficient work you have done during my administration. Whatever success I may have to my credit as head of these two Governmental enterprises has been mainly due to your intelligent and faithful efforts. You have fully and enthusiastically met every emergency, and have not let your interest flag during times of routine operation. I am deeply grateful to you.

I shall always look back upon the years spent upon the Isthmus and the pleasant associations formed as a very happy period of my life, and you will always have my friendship and best wishes.

I bespeak for Colonel Burgess, my able successor in office, the same wholehearted cooperation which you have given me.

Very sincerely yours,

M. L. WALKER.

Revision of Telephone Directory.

The copy for a revised telephone directory, to be issued as of January 1, 1929, will go to the printer November 8, 1928. All changes or corrections in the present directory should be forwarded to the Telephone Supervisor, Balboa Heights, not later than November 1, 1928. Proof corrections will be made to December 1, 1928.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *October 16, 1928.*

No. 466.

The following was received by the Hydrographic Office from the Pilot in Charge, Lighthouse Subdivision of The Panama Canal:

Red Light on Coco Solo mole permanently discontinued.
Established: Three vertical fixed green lights, placed two feet apart, upper light on same focal plane as discontinued red light.
Illuminant: Electricity.
Each light: 100 watts.
Visibility: 7 miles.

(Signed) F. KARIGER, *Pilot in Charge.*

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, October 13, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Agwidale	5	14 20	7	6 00	7	12 57	7	22 45	American	Panama Mail S. S. Co	370 0	53 0	18 7	New York, N. Y.	San Francisco, Cal.	General	3,000	5,625	4,248
Alvarado	6	11 20	7	6 05	7	14 02	7	15 19	British	Pacific Steam Nav. Co	303 0	43 0	15 5	New York, N. Y.	Paita, Peru	General	793½	2,844	1,748
Hellenic	6	13 35	7	6 05	7	13 40	7	15 19	Swedish	Com'lth & Dom. Line	389 0	52 0	22 0	New York, N. Y.	Fremantle, Aust'lia	General	3,481	5,504	3,972
President Garfield	7	5 15	7	7 10	7	14 25	7	21 26	American	Dollar Line	502 0	62 0	28 0	New York, N. Y.	Around the world.	General	3,508	12,057	8,509
Suncil [1]	6	14 05	7	7 15	7	15 00	6	16 10	American	Sun Oil Co	480 6	66 0	22 0	Philadelphia, Pa.	Los Angeles, Calif	Ballast		9,610	6,396
Canadian Constructor	6	20 55	7	8 50	7	15 25	7	16 57	British	Can. Nat. Steamships	430 0	56 0	24 0	Montreal, Canada	Brisbane, Australia	General	2,898	7,680	5,494
Ohioan	7	6 35	7	8 55	7	15 43	7	16 57	American	Amer.-Hawaiian Line	407 7	53 7	20 5	Boston, Mass	Portland, Oreg	General	3,400	7,103	4,991
Altuna Mendi	7	6 50	7	9 55	7	16 48	7	17 47	Spanish	Sota and Aznar	400 0	53 0	13 0	Barry, England	Arica, Chile	Ballast		6,282	4,547
Lowther Castle	7	3 40	7	10 15	7	17 20	7	18 18	British	Barber S. S. Line	400 0	51 0	25 0	New York, N. Y.	Chinwangtao, China	(1)	6,370	5,800	4,340
Arkansas	7	5 30	7	11 00	7	17 49	7	19 15	French	French Line	448 6	53 0	20 3	Havre, France	Vancouver, B. C.	General	2,408	7,678	5,563
Heira [2]	7	11 55	7	12 10	7	19 11	7	22 15	Norwegian	Strachan Shipping Co	377 8	52 2	17 0	Galveston, Texas	Osaka, Japan	Cotton	4,130	5,764	4,322
Cerico	5	20 25	7	19 57	8	9 05	8	10 41	German	Hamburg-American Line	227 0	34 0	15 3	Cristobal, C. Z	Buenaventura, Col.	General	328	1,572	1,011
Helen Olmsted [2]	6	21 25	8	6 08	8	14 11	8	15 15	American	Texas S. S. Co	325 8	57 0	22 6	Philadelphia, Pa.	Los Angeles, Calif	Ballast		7,484	5,216
Bolivar [2]	7	21 25	8	6 15	8	14 45			Venezuelan	Venezuela Gulf Oil Co	367 0	51 0	19 4	Los Piedras, Venez.	Balboa, C. Z	Ballast			
Limon	8	5 10	8	6 20	8	14 47	8	15 45	American	United Fruit Co	330 6	44 0	18 10	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	541½	3,675	2,229
Willpolo	7	21 35	8	7 08	8	15 51	8	16 55	American	Williams S. S. Line	386 8	52 2	19 8	Baltimore, Md	Tacoma, Wash	General	3,974	5,680	4,080
Aladin [2]	8	00 25	8	7 25	8	15 02	8	16 00	American	Standard Transp. Co.	435 0	56 2	20 0	Providence, R. I.	Los Angeles, Calif	Ballast		7,408	5,112
Asuka Maru [2]	8	4 20	8	8 15	8	15 32	8	16 55	Japanese	Nippon Yusen Kaisha	440 0	57 0	22 0	Baltimore, Md	Kobe, Japan	(5)	4,886	8,139	5,389
Sydland	8	8 15	8	9 45	8	16 29	8	18 05	Swedish	Axel Brostrom & Son	431 1	52 0	14 0	Rotterdam, Holland	Vancouver, B. C	Ballast		6,771	4,891
Guayaquil	7	16 35	8	10 05	8	16 38	8	18 05	American	Panama R.R. S.S. Line	254 0	43 6	21 1	New York, N. Y.	Guayaquil, Ecuador	General	1,607	2,874	1,944
Poljana	8	12 25	8	12 40	8	19 40	8	21 05	Norwegian	Scand.-S. Pacific Co	360 0	52 0	24 6	Oslo, Norway	Corral, Chile	(6)	6,018	5,451	3,820
Swan [3]			8	6 20	8	12 14			American	U. S. Navy	189 0	35 6		Cristobal, C. Z	Balboa, C. Z				
Pacific Grove [2]	4	6 00	8	16 32	9	11 33			British	Furness, Withy & Co	450 0	61 0	17 5	Glasgow, England	Vancouver, B. C.	General	897	10,086	7,226
Memphis City	8	20 30	8	20 40	9	12 02	9	13 10	American	U. S. Steel Products Co.	425 0	56 0	25 6	Baltimore, Md	Singapore, M. Pen.	Steel, general	7,321	7,611	5,450
S. C. T. Dodd [2]	8	20 55	9	6 20	9	14 17	9	15 25	American	Standard Oil Co	425 0	57 2	20 0	Baltimore, Md	Los Angeles, Calif	Ballast		7,481	4,975
Edgar F. Luckenbach	9	9 30	9	9 45	9	16 16	9	17 29	American	Luckenbach Line	425 0	57 3	25 0	New Orleans, La	Tacoma, Wash	General	5,612	8,568	6,648
Dosina [2]	9	13 12	9	15 05	9	22 50	10	00 25	Dutch	Anglo-Saxon Pet. Co	400 3	52 0	25 0	Caracao, D. W. I.	Los Angeles, Calif	Fuel oil	7,124	5,912	3,657
Minnesotan	9	17 20	9	17 40	10	8 50	10	9 45	American	Amer.-Hawaiian Line	407 0	53 7	22 0	Boston, Mass	Seattle, Wash	General	3,648	7,150	5,024
Heffron	9	16 40	10	6 05	10	13 30	10	15 30	American	Norton, Lilly & Co	449 0	56 0	29 6	Baltimore, Md	Vancouver, B. C.	Steel, general	10,288	8,312	6,097
J. L. Luckenbach	10	3 35	10	7 05	10	14 07	10	15 30	American	Luckenbach Line	448 9	60 2	21 0	Boston, Mass	Seattle, Wash	General	7,000	9,294	6,861
Laurel	10	6 27	10	8 25	10	15 38	10	16 50	American	Forrest Transp. Corp	410 0	54 0	12 0	Wilmington, Del.	Portland, Oreg	(7)	3,713	6,756	4,874
Gilda Scuderi	7	13 05	11	6 15	11	15 40	11	17 50	American	Scuderi Motor Co	251 0	43 0	20 8	Boston, Mass	Kobe, Japan	Scrap, iron	2,742	2,258	1,386
Suneweo	11	2 40	11	6 15	11	13 45	11	18 15	American	Transmarine Lines	324 0	46 0	20 0	Mobile, Ala	Bremerton, Wash.	General	3,257	3,984	2,612
Suveric	10	21 25	11	6 20	11	14 21	11	15 40	British	Andrew Weir & Co	460 0	55 11	28 0	Philadelphia, Pa.	Osaka, Japan	General	8,369	8,271	6,249

[1] Tanker. [2] Motor ship. [3] Mine sweeper. [4] Case oil and general. [5] Cotton, rosin, and tinplate. [6] Cement, explosives, and general. [7] Paper, steel, tobacco, and general.

Franklin K. Lane [1]	10	21.45	11	7.25	11	15.40	11	16.40	American	Huasteca Petroleum Co.	435.0	56.2	19.0	Providence, R. I.	Los Angeles, Calif.	Ballast		7,405	5,131
Litiopa [1]	10	23.30	11	7.35	11	16.34	13	11.49	Norwegian	Anglo-Saxon Pet. Co.	400.0	52.4	25.0	Curacao, D. W. I.	Balboa, C. Z.	Oil	6,922	5,524	3,612
City of Carlisle	11	00.45	11	8.20	11	16.20	11	17.30	British	Ellerman Bucknall Line	434.0	54.7	26.0	Sydney, C. B.	Shanghai, China	General	6,939	8,124	6,303
Clearton	11	3.45	11	8.30	11	17.18	11	18.15	British	R. Chapman & Son	400.0	52.3	17.0	Algiers, Algeria	San Francisco, Cal.	Ballast		5,710	4,164
Carnegie [3]	11	3.35	11	10.45	11	18.40			American	The Carnegie Institute	135.6	32.2	14.0	Washington, D. C.	Callao, Peru	Ballast		328	180
Mataroa	11	11.05	11	11.30	11	17.46	12	13.45	British	Shaw, Savill & Albion	500.4	63.0	27.6	London, England	Timaru, N. Z.	General	6,000	13,590	9,233
Ville de Verdun	11	7.25	11	12.25	11	19.29	11	20.30	French	Messageries Maritimes	409.0	53.5	23.5	Dunkirk, France	Noumea, N. Calid	General	2,020	7,603	5,629
Naples Maru	11	12.00	11	13.00	11	20.24	11	21.50	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.0	Houston, Texas	Yokohama, Japan	General	7,181	6,207	4,670
Richmond [9]	11	15.25	11	18.05	12	9.16			American	R. J. McArdle & Co.	137.0	27.6	15.0	Pensacola, Fla.	Buenaventura, Col.	[13]		426	90
No. 102 [10]	11	15.25	11	18.05	12	9.16			American	R. J. McArdle & Co.	150.0	30.0		Pensacola, Fla.	Buenaventura, Col.	Ballast		342	342
Ebro	11	20.30	12	6.00	12	13.53	12	15.00	British	Pacific Steam Nav. Co	450.0	57.0	26.10	New York, N. Y.	Talcahuano, Chile	General	4,615	9,291	6,301
Edgemont	11	21.20	12	6.20	12	14.55	14	18.09	American	Roosevelt S.S. Co., S.B.	409.0	54.0	25.0	New York, N. Y.	Dairen, China	General	6,533	7,448	5,868
California	12	6.15	12	7.15	12	14.17	13	2.27	American	Panama Pacific Line	574.4	80.3	28.0	New York, N. Y.	San Francisco, Cal.	Lumber, general.	3,104	24,506	17,565
Oakmar	11	21.50	12	7.35	12	15.46	12	17.05	American	Calmar S. S. Corp.	384.4	51.2	27.0	Philadelphia, Pa.	Seattle, Wash.	Steel, general.	8,103	6,327	4,433
British Star [1]	11	22.15	12	8.45	12	15.57	12	17.05	British	British Admiralty.	429.0	57.0	17.0	Houston, Texas	Los Angeles, Calif.	Ballast		7,174	4,964
Gothic star	12	6.04	12	9.10	12	16.25	12	17.35	British	Blue Star Line	420.5	54.7	19.0	Newcastle-on-Tyne	Vancouver, B. C.	Ballast		7,521	5,852
Bradclyde	12	6.25	12	10.10	12	17.01	12	18.28	British	Canadian Wheat Pool	399.6	53.0	13.6	Barry, England	Vancouver, B. C.	Ballast		6,883	4,118
Trongate	12	6.07	12	10.15	12	17.48	12	19.05	British	Andrew Weir & Co.	380.3	51.0	22.6	Galveston, Texas	Auckland, N. Z.	Sulphur	5,225	5,294	2,717
Brighton	12	7.00	12	11.08	12	18.29	12	19.38	British	Can.-Amer. Ship. Co	409.6	54.0	16.9	Genoa, Italy	San Francisco, Cal.	Ballast		5,718	4,091
San Manuel [1]	12	9.30	12	11.40	12	18.56	13	00.30	British	Eagle Oil Transp. Co.	407.0	52.3	17.0	Grainton, England.	Los Angeles, Calif	Ballast		6,183	4,343
Canadian Highlander	12	5.35	12	13.42	12	20.35	12	21.45	British	Can. Nat. Steamships	400.0	52.0	21.3	Montreal, Canada	Dunedin, N. Z.	General	4,507	6,192	4,402
Cali	5	17.50	12	14.15	12	22.05	13	2.27	German	North German Lloyd	228.0	33.0	13.10	Cristobal, C. Z.	Guayaquil, Ecuador	General	340	1,105	698
Garfield	11	20.25	12	14.24	12	21.10	13	13.15	American	N. O. & S. A. S. S. Line	299.4	45.0	18.3	New Orleans, La.	Talcahuano, Chile	General	1,378	3,256	2,010
Steelore	12	9.40	12	14.58	13	9.48	13	11.08	American	Ore S. S. Corp.	550.3	72.2	25.3	New York, N. Y.	Cruz Grande, Chile	Ballast		15,551	4,297
Jefferson Myers	12	20.00	13	6.25	13	14.15	13	15.50	American	Arrow Line	440.0	56.0	18.0	Baltimore, Md.	Portland, Oreg.	General	2,970	8,300	6,020
Elias Krammer	12	20.15	13	6.25	13	15.12	13	16.40	Norwegian	W. K. Frimann & Co.	375.0	52.3	22.0	Norfolk, Va.	Moji, Japan	[14]	6,019		
Keifuku Maru	13	6.47	13	7.10	13	15.26	13	16.40	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.6	Galveston, Texas	Yokohama, Japan	[15]	7,123	6,213	4,670
Wirral	13	7.45	13	8.20	13	15.55	13	17.35	British	N. Z. Shipping Co.	385.0	52.0	19.3	Montreal, Canada	Auckland, N. Z.	General	3,581	5,131	3,664
Woensdrecht [12]	13	6.25	13	9.55	13	16.53	13	20.25	Dutch	Phs. Van Om. Ship.Co	370.0	53.3	18.0	Grangemouth, Eng	Los Angeles, Calif.	Ballast			
Geo. W. Barnes [1]	13	7.55	13	10.27	13	17.24	13	18.25	American	Huasteca Petroleum Co.	416.8	56.1	21.4	New Orleans, La.	Los Angeles, Calif.	Ballast		6,763	4,759
Atlanticos	11	3.15	13	11.40	13	18.47	14	15.34	Greek	Kulukundis	440.0	54.0	13.6	Antwerp, Belgium	Iquique, Chile	Ballast		6,221	4,482
Virginian	13	12.05	13	12.30	13	19.15	13	20.25	American	Amer.-Hawaiian Line	491.5	58.3	22.0	Boston, Mass.	Portland, Oreg.	General	3,300	10,491	7,601
Buenos Aires	12	9.05	13	12.40	13	19.50	13	21.05	Spanish	Com. Trans. de Barcel'a.	410.0	48.0	21.10	Barcelona, Spain	Valparaiso, Chile	General	153	5,624	3,844
King Cadwallon	13	12.55	13	13.15	13	21.17	13	23.06	British	Anglo-Saxon Pet. Co.	400.0	52.2	24.0	Tampico, Mexico	Fremantle, Aust'lia	Asphalt	5,601	6,091	4,415
Dinteldijk [2]	12	13.05	13	14.43	13	21.53	13	23.06	Dutch	Holland-American Line	485.0	62.0	22.2	Rotterdam, Holland	Vancouver, B. C.	General	3,248	10,786	7,551
Chiman [11]	11	22.25	13	13.45	13	21.20			Panaman	National Nav. Co.	116.0	21.0	9.6	Cristobal, C. Z.	Buenaventura, Col.	General	317	211	124
Hope [12]			13	12.00	13	19.55			American	J. R. Powell	37.0	10.8		Cristobal, C. Z.	Balboa, C. Z.	Unknown		11	11

[1] Tanker. [2] Yacht. [9] Tug. [10] Barge. [11] Motor schooner. [12] Launch. [13] Towing barge *No. 102*. [14] Scrap iron and rails. [15] Phosphates, cotton, rosin, and ammonia.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Nitro [16]	5	21.00	7	6.19	7	14.18	7	22.00	American	U. S. Navy	484.0	60.8	22.0	Mare Island, Calif	Hampton Roads, Va	Navy general	291	.....	.....
Salle [17]	7	00.10	7	7.39	7	15.33	8	1.05	German	North German Lloyd	471.9	61.0	27.0	Vancouver, B. C.	Hamburg, Germany	General	8,595	9,335	6,844
Point Arena	7	9.15	7	9.53	7	17.15	7	17.15	American	Gulf-Pacific Line	324.0	46.2	23.0	Seattle, Wash	New Orleans, La	Lumber, general	3,717	3,984	2,612
Santa Maria [17]	7	12.53	8	6.15	8	13.05	8	16.00	American	Grace Line	466.6	64.0	25.0	Arica, Chile	New York, N. Y.	Copper, nitrates	5,329	10,350	6,382
Amerikaland [17]	8	5.50	8	6.54	8	16.10	8	17.40	Swedish	Ore S. S. Corp	561.0	72.2	34.6	Cruz Grande, Chile	Baltimore, Md	Iron ore	21,500	15,560	4,496
Chincha	8	1.00	8	8.37	8	16.10	8	16.10	American	Planet Line	403.0	52.3	.....	Portland, Oreg	Providence, R. I.	Lumber	5,500	6,872	4,973
Radnorshire	8	5.30	8	9.08	8	16.45	8	16.45	British	Royal Mail S. P. Co	412.5	55.5	27.0	Vancouver, B. C.	Antwerp, Belgium	General	8,825	6,898	4,888
Niagara [18]	.....	.....	8	10.19	8	17.40	.....	.....	American	U. S. Navy	245.0	36.3	18.9	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
No. 5 [19]	.....	.....	8	6.58	8	.....	.....	.....	American	U. S. Navy	.....	.....	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
No. 6 [19]	.....	.....	8	6.58	8	.....	.....	.....	American	U. S. Navy	.....	.....	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
Mary Ellen O'Niel [1 17]	8	22.05	9	6.16	9	14.15	9	14.15	American	The Texas Co	509.0	70.0	30.6	Los Angeles, Calif	Baltimore, Md	Bulk gasoline	17,000	12,425	8,338
Balboa [17]	8	15.00	9	7.14	9	15.45	9	21.49	Swedish	Johnson Line	440.0	56.0	26.0	Honolulu, T. H.	Stockholm, Sweden	General	7,184	7,480	5,533
Storviken	9	1.00	9	8.16	9	16.20	9	17.45	Norwegian	Wallen & Co	380.0	53.2	23.6	Chemainus, Wash	Liverpool, England	Lumber	5,921	5,342	3,826
Corinto	8	21.28	9	9.36	9	16.28	15	6.05	American	Panama Mail S. S. Co.	261.1	40.0	15.0	San Francisco, Cal.	Cristobal, C. Z	General	891	2,352	1,549
Calcutta Maru	8	23.40	9	10.56	9	18.14	9	23.45	Japanese	Nippon Yusen Kaisha	400.0	54.6	16.6	Hongkong, China	Boston, Mass	General	4,165	5,790	4,178
Alness	9	10.40	9	11.36	9	19.35	9	19.35	British	Sir W. R. Smith & Sons	346.7	51.0	23.0	Portland, Oreg	Queenstown, Ire.	Wheat	6,059	4,852	3,544
Dakotan	9	11.00	9	11.46	9	18.55	9	18.55	American	Amer.-Hawaiian Line	407.7	53.7	29.0	Portland, Oreg	Boston, Mass	General	8,661	7,156	5,094
Planet	9	15.00	9	16.03	10	11.30	10	15.45	German	Hamburg-American Line	450.8	57.2	25.0	Punta Arenas, Chile	Hamburg, Germany	General	4,708	7,460	5,234
Manchuria	9	15.07	10	5.41	10	13.15	10	13.50	American	Panama-Pacific Line	600.0	65.3	33.0	San Francisco, Cal.	New York, N. Y.	General	8,960	17,044	11,488
Katrina Luckenbach	9	18.15	10	7.02	10	14.30	10	14.30	American	Luckenbach Line	446.0	56.1	29.6	Portland, Oreg	Boston, Mass	General	6,349	8,508	6,179
Loreto [17]	9	23.10	10	8.16	10	15.50	10	20.43	British	Pacific Steam Nav. Co	404.6	54.2	26.6	Talcahuano, Chile	Hull, England	General, nitrates	7,935	7,334	5,037
Stella	10	6.40	10	8.46	10	16.32	.....	.....	Norwegian	Panama Mail S. S. Co.	195.1	32.9	12.6	Champerico, Guat	Cristobal, C. Z	Coffee, logs	325	985	606
Agia Marina	10	2.30	10	9.29	10	16.55	10	17.11	Greek	Karros Steam Nav. Co	370.0	51.0	25.0	Tocopilla, Chile	Azores [25]	Nitrates	7,260	5,495	4,137
Acajutla	10	10.50	10	11.16	10	17.45	.....	.....	British	Pacific Steam Nav. Co	215.7	33.5	14.0	Champerico, Guat	Cristobal, C. Z	([21])	183	1,273	706
Uribe	10	11.40	10	12.27	10	20.10	.....	.....	Colombian	Estrada G. Hermanos	227.4	31.7	12.6	Buenaventura, Col.	Cristobal, C. Z	([22])	525	1,154	663
Solana [1]	11	5.15	11	6.53	11	14.45	11	17.00	American	Associated Oil Co	419.5	56.5	26.0	San Francisco, Cal.	New York, N. Y.	Gasoline	9,000	7,060	5,025
Buenaventura	11	3.35	11	7.07	11	16.05	12	13.05	American	Panama R.R. S.S. Line	251.0	43.0	15.6	Guayaquil, Ecuador	New York, N. Y.	([23])	1,297	2,873	1,776
Wido	11	7.10	11	8.37	11	17.05	12	00.40	German	Roland Line	393.4	54.3	26.8	Valparaiso, Chile	Hamburg, Germany	Nitrates, general	8,094	6,585	4,631
San Mateo	11	7.25	11	9.52	11	17.10	12	16.10	American	United Fruit Co	315.0	44.2	19.6	San Francisco, Cal.	Port Limon, C. R.	General	376	3,496	2,141
Absaroka	11	12.40	11	13.28	11	22.20	11	22.20	American	McCormick S. S. Co	409.6	54.1	27.3	San Francisco, Cal.	Philadelphia, Pa.	General, lumber	7,601	6,627	4,993
Chiman [17]	9–25	.....	11	15.13	11	22.25	13	13.45	Panaman	Isth. Land & Fruit Co	116.0	21.0	7.0	Balboa, C. Z	Cristobal, C. Z	Ballast	.....	211	124
Swainby	10–11	16.30	11	17.15	12	13.00	12	13.00	British	Sir. R. Ropner & Co	390.0	55.6	24.6	Portland, Oreg	Naples, Italy	Wheat	7,700	5,930	4,282
Clan Ogilvy	11	8.40	11	17.59	12	11.35	12	13.15	British	Clan Line Steamers	430.0	54.2	25.0	Baie N'Go., N. Cal.	Europe	([24])	7,593	6,879	4,931
Levant Arrow [1]	11	15.10	12	6.10	12	14.20	12	14.20	American	Standard Transp. Co.	468.0	62.7	27.6	Los Angeles, Calif	New York, N. Y.	Gasoline	11,291	9,744	7,039
Yankee Arrow [1]	12	1.00	12	6.50	12	15.35	12	15.35	American	Standard Transp. Co.	468.3	62.7	27.8	Los Angeles, Calif	Baltimore, Md	Gasoline	11,275	9,841	6,946
Bolivar [1 20]	8	14.45	12	7.00	12	18.05	12	19.15	Venezuela	Venezuela Gulf Oil Co.	305.0	50.0	13.2	Balboa, C. Z	Maracaibo, Venez	Ballast	.....	.....	.....
Willzipo	12	2.00	12	8.05	12	18.35	12	18.35	American	Williams S. S. Line	415.0	55.7	28.0	Seattle, Wash	Baltimore, Md	([26])	7,500	7,731	5,805

[1] Tanker. [16] U. S. Navy transport. [17] Motor ship. [18] U. S. survey ship. [19] Launch. [20] October 8 for dry docking only. [21] Coffee, wood, and hides. [22] Coffee, hides, and machinery. [23] Coffee, cocoa, tagua, and cottonseeds. [24] Chrome ore and copra. [25] For orders. [26] Lumber and canned goods.

Benalder	12	6.00	12	8.50	12	18.30	12	21.10	British	Ben Line Steamers, Ltd.	400.0	51.8	24.0	San Francisco, Cal.	Leith, Scotland	Barley	7,055	5,419	3,995
Dramatist	12	6.55	12	9.13	12	19.45	13	00.55	British	T. & J. Harrison	410.0	52.3		Vancouver, B. C.	Liverpool, England	General	6,753	6,202	4,154
Clydebank [17]	12	9.25	12	10.09	12	19.40	12	20.35	British	Andrew Weir & Co	420.0	53.9	25.0	Tocopilla, Chile	Pensacola, Fla.	Nitrates	8,403	7,101	5,018
Dixie Arrow [1]	12	10.40	12	11.22	12	20.30	12	20.30	American	Standard Transp. Co.	468.3	62.7	27.4	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,277	9,744	7,140
Lebore	13	3.00	13	6.04	13	18 10	13	18.10	American	Ore S. S. Corp	550.0	72.2	34.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	20,000	14,325	4,635
Knute Nelson [17]	12	15.00	13	7.07	13	18.48	14	2 25	Norwegian	Peter Olsen	435.9	56.2	27.4	Portland, Oreg.	Oslo, Norway	General	8,362	8,016	5,854
Robin Gray	12	18.11	13	7.14	13	19.05	13	19.05	American	Seas Shipping Co	424.8	55.2	25.6	Everett, Wash.	Baltimore, Md.	Lumber	5,979	7,472	5,542
Oroya	13	7.10	13	8.30	13	16 45	13	22.55	British	Pacific Steam Nav. Co.	525.3	62.8	29.6	Talcahuano, Chile	Liverpool, England	General	8,264	13,137	9,067
Nictheroy	12	19.50	13	8.57	13	19.30	13	19.30	British	Royal Mail S. P. Co.	450.2	58.4	27.8	Vancouver, B. C.	Rotterdam, Holland	General	7,253	8,874	6,558
Laleham	12	23.00	13	9.15	13	21 05	13	21.05	British	Watts, Watts & Co	351.5	53.1	25.0	Tocopilla, Chile	Norfolk, Va [25]	Nitrates	6,712	5,007	3,370
Kansan	13	8.15	13	10.12	13	21.40	13	21.40	American	Amer.-Hawaiian Line	404.6	53.9		Seattle, Wash.	Boston, Mass.	General	8,094	6,779	4,927
Mantaro	13	00.30	13	9.09	13	20.50			Peruvian	Peruvian Line	367.3	46.0		Callao, Peru	Cristobal, C. Z.	Copper, general	2,002	4,838	2,959
Toluma	13	10.55	13	11.32	13	22 40	14	1 15	Norwegian	Grace Line	417.8	54.4	29.6	Punta Arenas, Chile	Boston, Mass	([29])	9,754	7,176	5,219
Durazzo	13	11.50	13	12.29	13	21.05	15	12.20	German	Hamburg-AmericanLine	227.5	34.7	13.6	Guayaquil, Ecuador	Cristobal, C. Z.	General	453	1,633	1,041
Martha [17]	13	14.20	13	14.57	13	23.05			Norwegian	Chr. Hannevig	183.3	30.0	11.0	Buenaventura, Col.	Cristobal, C. Z.	Ballast		780	504
Profit	13	14.50	13	15.49	14	11.00	14	12.35	Norwegian	Munson S. S. Line	246.2	37.9	10.0	Corinto, Nicaragua	Manzanillo, Cuba	Ballast		1,629	1,114
Doris [27]			13		13				Panaman	United Fruit Co	38.0	15.0		Balboa, C. Z.	Gatun Lake, C. Z.	([30])			
No. 31023 [28]			13		13				Panaman	United Fruit Co				Balboa, C. Z.	Gatun Lake, C. Z.	([31])			
No. 31050 [28]			13		13				Panaman	United Fruit Co				Balboa, C. Z.	Gatun Lake, C. Z.	([31])			
No. 31060 [28]			13		13				Panaman	United Fruit Co				Balboa, C. Z.	Gatun Lake, C. Z.	([31])			

[1] Tanker. [27] Launch. [28] Barge. [29] Nitrates, copper, skins, and manganese ore. [30] Towing barges. [31] Towed by launch *Doris*.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
October 7	Toloa	United Fruit Co	Port Limon, Costa Rica.
October 7	Coppename	United Fruit Co	Bocas del Toro, R. P.
October 8	Calamares	United Fruit Co	New York via Habana.
October 9	Galicia	Hamburg-American Line	Puerto Barrios, Colombia.
October 9	Mayari	United Fruit Co	New York via wayports.
October 10	Simon Bolivar	Royal Netherlands S. S. Co	Amsterdam via wayports.
October 10	Ancon	Panama Railroad S. S. Line	New York via Haiti.
October 10	Tivives	United Fruit Co	New York via Kingston.
October 10	Waunta	Standard Fruit & S. S. Co	Porto Cabezas.
October 11	Bowden	United Fruit Co	Mobile, Ala.
October 11	Kyphissia	Hamburg-American Line	Hamburg via wayports.
October 12	Gatun	Standard Fruit & S. S. Co	New Orleans, La.
October 12	Simon Bolivar	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
October 12	William M. [32]	G. I. Bryan	Colon, R. P.
October 13	Carare	Elders & Fyffes, Ltd	Avonmouth via wayports.
October 13	Waunta	Standard Fruit & S. S. Co	San Blas, R. P.
October 13	Bowden	United Fruit Co	Perme, R. P.
October 13	Suriname	United Fruit Co	New Orleans, La.
October 13	Maravi	United Fruit Co	Colombian ports.
October 13	Cartago	United Fruit Co	New Orleans via Habana.
October 13	Anachucuna [33]	United Fruit Co	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
October 7	Smaragd	United Fruit Co	Mobile, Ala.
October 7	Favorita	Standard Fruit & S. S. Co	New Orleans, La.
October 7	Toloa	United Fruit Co	New York via Habana.
October 8	Heredia	United Fruit Co	New Orleans and wayports.
October 8	Coppename	United Fruit Co	New Orleans and wayports.
October 9	Galicia	Hamburg-American Line	Hamburg and wayports.
October 9	Mayari	United Fruit Co	New York via Kingston.
October 10	Simon Bolivar	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
October 10	Calamares	United Fruit Co	Port Limon, Costa Rica.
October 11	Tivives	United Fruit Co	New York via wayports.
October 11	Bowden	United Fruit Co	Perme, R. P.
October 11	Waunta	Standard Fruit & S. S. Co	San Blas, R. P.
October 12	Kyphissia	Hamburg-American Line	Port Limon, Costa Rica.
October 12	William M. [32]	G. I. Bryan	Bluefields, Nicaragua.
October 13	Carare	Elders & Fyffes, Ltd	Avonmouth via Kingston.
October 13	Simon Bolivar	Royal Netherlands S. S. Co	Amsterdam and wayports.
October 13	Waunta	Standard Fruit & S. S. Co	Puerto Cabezas.
October 13	Gatun	Standard Fruit & S. S. Co	New Orleans and wayports.
October 13	Suriname	United Fruit Co	Port Limon via Bocas del Toro, R. P.

[32] Schooner. [33] Motor boat. * Other than ships passing through the Canal.

(Continued on page 156, column 2.)

Canal Traffic During First Fifteen Days of October, 1928.

During the first 15 days of October, 259 commercial vessels and 4 small launches transited the Canal. Tolls on the commercial vessels aggregated $1,031,136.02, and on the launches $56.70, or a total tolls collection of $1,031,192.72.

The daily average of transits of commercial vessels was 17.27 and the daily average tolls collection $68,742.40. The average amount of tolls paid by each of the commercial transits was $3,981.22, as compared with $4,381.01 for the first 15 days of September. Traffic for the first 15 days of October was higher by 27 transits and $14,741 in tolls than the traffic for the first 15 days of September, 1928.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 9½ months of the current calendar year, with the daily averages of transits and tolls:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,370.57	17.48	71,271.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October (first 15 days)	259	1,031,136.02	17.27	68,742.40
Totals	4,930	20,463,186.26	17.06	70,896.94

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pound	11.00	14.00

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 12 cents per pound and forequarters at 9½ cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Commercial Traffic Through the Panama Canal in September, 1928, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of September, 1928, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for September, 1927, and 1926. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States	64	336,082	256,210	412,760	255,498	$295,732.46	224,458
Europe to west coast United States:							
British	20	92,404	74,198	121,098	74,262	68,088.54	10,661
French	1	5,050	4,356	7,011	3,989	3,636.00	.....
German	3	15,439	10,201	16,629	10,240	12,751.25	13,180
Norwegian	4	18,561	15,087	24,730	15,129	15,990.72	6,395
Swedish	1	4,919	2,878	4,960	3,665	3,597.50	4,381
United States	2	12,647	10,012	16,222	9,950	10,628.61	9,015
Totals	31	149,020	116,732	190,650	117,235	114,692.62	43,632
East coast of United States to west coast of South America:							
British	6	23,104	18,146	30,416	18,809	21,487.22	19,556
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,485
German	2	3,726	2,234	3,907	2,207	2,792.50	654
Peruvian	1	1,529	1,483	2,155	1,169	1,834.80	1,631
Swedish	3	10,430	8,793	32,276	9,816	8,053.99	374
United States	11	48,700	40,085	68,968	40,132	38,308.40	10,063
Totals	24	92,194	74,207	145,032	76,109	76,809.41	34,763
Europe to west coast Canada:							
British	14	73,402	54,101	87,224	54,166	61,134.44	11,947
Danish	1	5,286	4,207	6,636	4,236	5,258.75	2,049
Dutch	3	19,539	15,826	25,354	15,772	19,782.50	8,263
French	2	10,434	7,461	12,429	7,490	9,326.25	5,391
German	1	6,344	3,826	6,780	4,057	4,782.50	7,415
Italian	1	5,552	4,686	7,714	4,662	5,857.50	498
Totals	22	120,557	90,107	146,137	90,383	106,141.94	35,563
Europe to west coast of South America:							
Belgian	1	4,792	4,142	6,512	4,038	3,450.24	.....
British	5	35,015	28,386	46,341	28,628	35,482.50	21,972
Danzig	1	6,338	5,236	8,956	5,041	4,563.36	.....
Dutch	2	8,926	5,582	8,998	5,278	6,977.50	6,835
French	1	4,312	3,743	5,903	3,743	4,678.75	1,593
German	5	23,844	19,925	32,283	19,916	23,328.55	12,616
Greek	2	7,890	7,194	9,082	5,642	5,771.16	.....
Italian	1	9,373	5,223	11,669	6,779	6,528.75	1,017
Spanish	1	2,827	2,459	4,349	2,565	3,073.75	379
Yugoslav	1	4,570	3,271	5,271	3,296	4,088.75	6,156
Totals	21	107,887	85,161	139,364	84,926	97,943.31	50,568
East coast of United States to Far East:							
British	5	26,121	17,620	28,917	17,446	22,025.00	36,178
Japanese	5	23,080	21,586	30,221	21,276	26,444.50	35,045
Norwegian	1	4,534	2,465	4,114	2,453	3,081.25	6,905
United States	4	21,013	14,271	23,329	14,274	17,838.75	31,067
Totals	15	74,748	55,942	86,581	55,449	69,389.50	109,195
East coast of United States to Australasia:							
British	8	44,156	30,813	47,716	30,049	38,516.25	38,681
Norwegian	3	20,870	17,939	27,123	17,977	22,423.75	8,230
United States	2	5,075	3,570	5,931	3,613	4,364.50	3,000
Totals	13	70,101	52,322	80,770	51,639	65,304.50	49,911

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of United States to Philippine Islands:							
British	2	12,191	6,735	12,045	6,752	$8,418.75	12,185
United States	1	6,078	4,857	7,589	4,857	6,071.25	8,492
Totals	3	18,269	11,592	19,634	11,609	14,490.00	20,677
Europe to Australasia:							
British	[1] 8	54,506	39,927	64,596	40,306	[1] 55,086.25	46,244
Cristobal, C. Z., to west coast of South America:							
Colombian	2	970	919	1,508	935	1,139.65	1,149
Dutch	2	1,484	588	1,560	646	735.00	377
German	3	2,793	1,642	3,324	1,718	2,052.50	1,250
Norwegian	1	606	485	855	482	606.25	1,238
Totals	8	5,853	3,634	7,247	3,781	4,533.40	4,014
East coast of Central America to west coast United States:							
United States	5	13,957	12,510	20,130	12,367	13,968.68	3,424
East coast of Canada to Australasia:							
British	5	21,878	18,180	28,782	18,565	22,574.80	15,359
South American intercoastal:							
Colombian	1	1,506	1,199	2,055	1,251	1,498.75	1,250
German	1	698	618	1,023	616	772.50	200
Norwegian	1	504	423	732	391	528.75	155
Peruvian	1	2,959	1,515	4,617	2,427	1,893.75	267
Totals	4	5,667	3,755	8,427	4,685	4,693.75	1,872
East coast of Canada to west coast South America:							
British	4	28,660	24,179	41,326	24,646	20,635.20	.....
East coast of United States to west coast of Canada:							
British	1	5,815	4,921	7,900	4,880	4,186.80	.....
United States	3	11,745	8,990	14,117	8,821	11,237.50	17,633
Totals	4	17,560	13,911	22,017	13,701	15,424.30	17,633
Foreign vessels in ballast—U. S. intercoastal:							
British	3	18,379	15,606	27,791	16,561	[2] 13,232.88	.....
Norwegian	1	7,609	5,753	9,516	4,676	7,191.25	.....
Totals	4	25,988	21,359	37,307	21,237	20,424.13	.....
Cristobal, C. Z., to west coast of Central America:							
British	3	2,063	1,900	3,436	1,906	2,353.90	3,176
Around the world:							
United States	3	23,617	17,974	28,019	17,943	22,467.50	13,321
Africa to west coast of South America:							
Greek	1	3,479	2,755	4,291	2,777	2,504.88	.....
Italian	1	4,849	4,250	6,749	4,261	3,491.28	.....
Totals	2	8,328	7,005	11,040	7,038	5,996.16	.....
Africa to east coast of Canada:							
British	1	4,181	2,849	4,631	2,852	3,010.32	.....
West Indies to west coast of United States:							
British	1	4,423	2,774	4,532	2,751	3,467.50	4,000
Cristobal, C. Z., to west coast of United States:							
Panaman	1	2,606	1,384	3,644	2,594	1,730.00	2,503
East coast of South America to Far East:							
Japanese	1	5,821	4,170	7,267	4,387	5,212.50	3,285
East coast of South America to west coast Canada:							
Norwegian	1	4,354	2,432	4,003	2,483	3,040.00	2,891
East coast of Central America to Australasia:							
British	1	4,078	3,166	5,103	3,168	3,957.50	6,001

[1] Naval vessel of 10,355 displacement tons, paying tolls of $5,177.50 included in number of ships and tolls collected; tonnage not included.

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
East coast Canada to Far East:							
British	1	6,646	4,155	6,589	4,178	$5,193.75	7,696
Canadian intercoastal:							
British	1	2,022	1,839	3,091	1,812	2,298.75	2,026
East coast of United States to Hawaiian Islands:							
United States	1	1,740	1,542	2,647	1,542	1,927.50	3,057
East coast of United States to west coast of Central America:							
United States	1	2,827	2,193	3,514	2,145	2,741.25	4,385
Grand totals, September, 1928	253	1,215,633	933,111	1,538,276	936,935	1,061,240.88	709,654
Grand totals, September, 1927	295	1,402,155	1,092,315	1,774,119	1,090,285	1,183,757.81	594,949
Grand totals, September, 1926	236	1,149,723	892,415	1,445,142	892,143	1,005,180.19	650,259

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	73	398,747	309,387	497,861	308,187	$386,733.75	595,611
West coast of United States to Europe:							
Belgian	1	4,976	4,568	7,138	3,988	5,710.00	9,500
British	12	52,515	41,599	68,561	41,491	51,998.75	96,714
Danish	1	5,623	4,670	7,691	4,710	5,837.50	10,800
Danzig	1	6,310	5,346	8,940	5,050	6,682.50	11,666
German	2	11,240	7,826	13,490	7,825	9,782.50	15,609
Japanese	4	18,744	17,229	23,339	16,975	21,536.25	31,267
Norwegian	2	8,065	6,919	11,963	6,855	8,648.75	15,372
Swedish	2	9,357	6,615	11,254	8,412	8,268.75	13,793
United States	2	13,706	11,817	17,428	11,783	14,587.40	23,752
Totals	27	130,536	106,589	169,804	107,089	133,052.40	228,473
West coast of South America to Europe:							
British	6	38,778	30,064	50,578	30,986	37,580.00	43,398
Danzig	1	6,338	5,236	8,956	5,041	6,545.00	11,448
Dutch	2	9,761	5,445	9,235	5,616	6,806.25	13,485
Finnish	1	1,835	1,828	1,979	1,709	2,202.00	3,200
French	2	9,186	7,511	12,205	7,577	9,388.75	15,533
German	5	23,134	17,217	27,977	17,384	21,521.25	36,446
Italian	3	16,924	11,837	21,584	13,010	14,796.25	18,263
Spanish	1	3,729	2,960	5,087	3,000	3,700.00	1,750
United States	1	5,049	4,399	7,246	4,399	5,498.75	9,423
Yugoslav	2	8,889	6,990	11,098	7,064	8,737.50	17,100
Totals	24	123,623	93,487	155,945	95,786	116,775.75	170,046
West coast of South America to east coast United States:							
British	5	16,231	12,279	21,477	12,864	15,348.75	15,638
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	5,244
Danish	1	4,519	3,595	5,886	3,658	4,493.75	8,700
Finnish	1	2,188	2,168	2,378	2,074	2,625.60	4,100
Swedish	2	6,009	5,050	16,937	5,439	6,312.50	21,886
United States	13	55,013	47,031	81,453	47,007	58,523.35	127,667
Totals	23	88,665	73,589	135,441	75,018	91,636.45	183,235
West coast Canada to Europe:							
British	9	52,116	36,853	59,299	36,800	46,066.25	75,164
Danish	2	9,900	6,870	11,099	7,238	8,587.50	16,346
Dutch	1	6,612	5,403	8,384	5,437	6,753.75	9,989
French	2	9,770	6,608	11,141	6,774	8,260.00	15,699
German	2	12,829	9,105	15,218	9,225	11,381.25	17,117
Italian	2	10,016	8,423	12,550	7,730	10,528.75	14,863
Norwegian	1	4,230	2,717	4,341	2,723	3,396.25	6,600
Totals	19	105,473	75,979	122,032	75,927	94,973.75	155,778
West coast of South America to Cristobal, C. Z.:							
Colombian	2	255	245	386	234	296.85	259
Dutch	2	1,484	588	1,560	646	735.00	801
German	5	4,205	2,840	5,256	2,715	3,517.35	1,947
Totals	9	5,944	3,673	7,202	3,595	4,549.20	3,007

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Australasia to Europe:							
British	7	53,458	40,304	63,703	40,560	$50,285.55	36,140
French	1	5,472	4,777	6,037	3,747	5,971.25	3,187
Totals	8	58,930	45,081	69,740	44,307	56,256.80	39,327
West coast of Canada to east coast United States:							
British	1	5,365	2,897	4,740	2,872	3,621.25	7,500
Danish	1	4,559	3,577	5,905	3,637	4,471.25	6,594
United States	3	7,836	6,054	9,821	6,031	7,567.50	11,276
Totals	5	17,760	12,528	20,466	12,540	15,660.00	25,370
South American intercoastal:							
Colombian	1	1,506	1,199	2,055	1,251	1,498.75	234
German	2	5,038	4,380	7,393	4,274	5,475.00	8,775
Peruvian	2	5,364	2,504	7,922	3,941	3,130.00	4,315
Totals	5	11,908	8,083	17,370	9,466	10,103.75	13,324
West coast of United States to east coast of Central America:							
United States	4	9,122	8,353	13,520	8,242	10,388.20	2,402
West coast of Central America to Cristobal, C. Z.:							
British	3	2,063	1,900	3,436	1,906	2,353.90	1,307
Colombian	1	307	302	405	308	226.50	.....
Totals	4	2,370	2,202	3,841	2,214	2,580.40	1,307
West coast of South America to east coast Canada:							
British	3	23,744	19,882	34,123	20,264	24,852.50	48,137
Norwegian	1	4,730	4,105	6,583	4,119	5,131.25	10,450
Totals	4	28,474	23,987	40,706	24,383	29,983.75	58,587
Philippine Islands to east coast United States:							
Japanese	2	10,771	8,418	13,532	8,283	10,522.50	11,251
United States	2	11,567	8,506	13,489	8,505	10,632.50	17,227
Totals	4	22,338	16,924	27,021	16,788	21,155.00	28,478
Canadian intercoastal:							
British	3	11,513	9,093	14,749	9,108	11,366.25	15,416
Balboa, C. Z., to Cristobal, C. Z.:							
German	2	238	238	238	238	178.50	.....
Norwegian	1	504	423	732	391	362.88	.....
Totals	3	742	661	970	629	541.38	.....
West coast of United States to Cristobal, C. Z.:							
Panaman	1	2,606	1,384	2,461	1,384	1,730.00	1,022
United States	1	5,209	4,327	7,076	4,359	5,408.75	9,869
Totals	2	7,815	5,711	9,537	5,743	7,138.75	10,891
West coast of United States to West Indies:							
British	[1]2	3,537	2,985	4,870	2,944	[1]6,231.25	5,932
Australasia to east coast of United States:							
United States	2	9,352	6,525	10,682	6,509	8,156.25	14,438
Australasia to east coast of Canada:							
British	2	9,632	7,696	9,670	7,755	9,620.00	2,276
Far East to West Indies:							
British	1	2,948	2,349	3,672	2,358	2,936.25	5,210
Norwegian	1	4,265	2,495	4,333	2,494	3,118.75	7,350
Totals	2	7,213	4,844	8,005	4,852	6,055.00	12,560
West coast Canada to Africa:							
British		4,345	3,181	5,274	3,171	3,976.25	7,350

[1] Includes naval vessel of 5,000 displacement tons.

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West coast of Central America to east coast United States:							
British	1	1,379	1,209	1,955	1,191	$1,511.25	2,000
West coast of Central America to Europe:							
German	1	1,469	1,155	1,930	1,128	1,443.75	2,732
West coast of South America to east coast Central America:							
Argentine	[a] 1	.....	.....	.....	.....	1,274.50	.....
West coast of South America to Egypt:							
Belgian	1	6,211	4,522	7,130	4,013	5,652.50	9,950
Yugoslav	1	4,536	3,547	5,635	3,537	4,433.75	8,473
Totals	2	10,747	8,069	12,765	7,550	10,086.25	18,423
Balboa, C. Z., to Gatun Lake:							
Panaman	1	33	33	33	33	39.60	.....
Far East to east coast United States:							
Japanese	1	4,301	3,468	5,220	3,159	4,335.00	2,094
Far East to Europe:							
British	1	3,452	3,492	4,569	2,875	4,365.00	4,300
Grand totals, September, 1928	234	1,079,420	837,984	1,371,178	840,189	1,049,989.68	1,603,357
Grand totals, September, 1927	245	1,130,787	892,102	1,450,542	888,536	1,110,674.53	1,802,840
Grand totals, September, 1926	210	1,037,081	814,010	1,325,836	815,892	1,014,446.23	1,589,238

[a] Naval vessel of 2,549 displacement tons.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending October 14, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Laded.
				Tons.	*Tons.*
U. S. A. T. Kenowis	U. S. Army, Q. M. Corps	October 3	October 5	916	4
Romulus	Weil & Ammundsen	October 4	October 6	1,019	.....
Erfurt	Roland Line	October 5	October 5	23	.....
Bessie	Pacific Fruit Co	October 3	October 3	39	.....
A. B. de O'barrio	Pacific Fruit Co	October 3	October 3	10	.....
Dos Hermanos and barge	A. Valdez	October 3	October 3	113	.....
Cauca	Colombian Transport Co	October 6	October 6	.....	8
Deroche	Union Oil Co	October 6	October 6	3,485	.....
Aachen	Hamburg-American Line	October 6	October 6	23	.....
Agwidale	Grace Line	October 7	October 7	38	79
President Garfield	Dollar Line	October 7	October 7	.....	1
Santa Maria	Grace Line	October 7	October 8	.....	6
Corinto	Panama Mail S. S. Co	October 8	October 9	26	.....
Calcutta Maru	Nippon Yusen Kaisha	October 9	October 9	85	.....
Anyo Maru	Nippon Yusen Kaisha	October 10	October 10	28	.....
Litiopa	Movadls Rederi	October 11	October 13	6,923	.....
California	Panama-Pacific Line	October 12	October 12	.....	237
Cali	North German Lloyd	October 12	October 12	.....	5
Havre Maru	Nippon Yusen Kaisha	October 14	October 15	63	.....
Garfield	Grace Line	October 12	October 13	65	15
Albingia	Hamburg-American Line	October 14	October 15	.....	.....

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

United States Intercoastal Traffic by Commodities for September, 1928.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for September, 1928, and the totals for September, 1927, and 1926. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise but they are indicative of the kind and quantity of the cargo in transit through the Canal. The figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only.

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Agricultural implements	1,215	.....	1,215
Alfalfa	.....	444	444
Alfalfa meal	.....	594	594
Ammonia	24	.....	24
Ammunition	33	.....	33
Asbestos	178	.....	178
Asphalt	338	44	382
Automobiles	981	50	1,031
Automobile accessories	191	25	216
Balsam	52	.....	52
Bark	.....	60	60
Beans	55	4,735	4,790
Bones and bonemeal	55	.....	55
Borax	.....	969	969
Bricks	94	.....	94
Burlap	132	132	264
Camphor	.....	116	116
Canned goods:			
Fish	187	17,086	17,273
Fruit	274	33,116	33,390
Meat	76	.....	76
Milk	55	780	835
Soup	2,260	.....	2,260
Vegetables	578	7,133	7,711
Miscellaneous	2,885	5,985	8,870
Carbon black	43	.....	43
Celite filtercel	.....	495	495
Cement	1,181	.....	1,181
Charcoal	224	103	327
Chemicals	2,270	297	2,567
China and fire clay	306	.....	306
Coal	1,391	.....	1,391
Cocoa	92	.....	92
Coconuts	.....	93	93
Coffee	58	200	258
Cold storage:			
Cheese	58	.....	58
Eggs	.....	210	210
Lard	439	.....	439
Meat	71	.....	71
Other	279	.....	279
Confectionery	711	.....	711
Copra	25	6	31
Cork	55	.....	55
Cotton	80	1,080	1,160
Drugs	1,208	50	1,258
Dyewoods	.....	38	38
Earthenware	72	.....	72
Eggs, dried	.....	188	188
Explosives	.....	155	155
Fertilizer	21	.....	21
Fish meal	.....	550	550
Flour	223	7,217	7,440
Fruit, dried	96	12,927	13,023
Furniture	388	.....	388
General	38,061	19,089	57,150
Glass and glassware	1,456	60	1,516
Granite	50	.....	50
Guano	.....	30	30
Gum	86	.....	86
Hair	37	43	80
Hardwoods	187	.....	187
Hay	100	782	882
Hemp	11	343	354
Honey	.....	199	199
Ink	18	.....	18

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Jute	25	30	55
Linoleum	1,584	27	1,611
Liquors	92	24	116
Lumber	3,770	179,273	183,043
Malt	37	.....	37
Manufactured goods:			
Iron and steel	124,288	245	124,533
Machinery	3,749	526	4,275
Railroad material	815	350	1,165
Tinplate	6,128	.....	6,128
Textiles	3,897	57	3,954
Miscellaneous	7,265	3,320	10,585
Marble	69	16	85
Matches	161	.....	161
Metals:			
Copper	71	7,460	7,531
Iron	250	.....	250
Lead	357	225	582
Scrap	.....	555	555
Zinc	50	.....	50
Other	27	.....	27
Milk, powdered	25	945	970
Molasses	211	18	229
Nuts	.....	611	611
Oats	15	.....	15
Oils:			
Coconut	.....	20	20
Cottonseed	141	.....	141
Crude	.....	23,500	23,500
Gas oil and fuel oil	.....	9,500	9,500
Gasoline, benzine, and naphtha	.....	202,637	202,637
Kerosene	37	22,723	22,760
Linseed	40	.....	40
Lubricating and greases	3,549	3,129	6,678
Vegetable	112	70	182
Wood	71	189	260
Ores:			
Magnesite	.....	957	957
Manganese	117	.....	117
Paint	718	.....	718
Paper	4,686	3,205	7,891
Paper pulp	12	3,102	3,114
Peanuts	.....	423	423
Peas	.....	264	264
Phosphates	712	.....	712
Porcelain	72	428	500
Quicksilver	.....	7	7
Rags	241	402	643
Rice	199	345	544
Rope	540	10	550
Rosin	206	.....	206
Rubber:			
Manufactured	1,378	88	1,466
Raw	231	.....	231
Scrap	.....	20	20
Salt	123	.....	123
Sand	1,003	.....	1,003
Seeds:			
Canary	15	.....	15
Grass	.....	421	421
Hemp	.....	27	27
Other	.....	462	462
Shells	778	46	824
Silk	20	62	82
Skins and hides	10	2,283	2,293
Slate	1,069	.....	1,069
Soap	2,652	51	2,703
Soda	707	.....	707
Soda ash	1,521	.....	1,521
Soda, bicarbonate	26	.....	26
Soda, caustic	888	.....	888
Starch	35	.....	35
Sugar	143	18,572	18,715
Sulphur	6,408	.....	6,408
Syrup	134	.....	134
Talc	.....	30	30
Tallow	.....	93	93
Tar	26	.....	26
Tea	18	33	51
Tobacco	2,007	9	2,016
Toys	119	1	120
Turpentine	70	.....	70
Vegetables	42	86	128
Waste	12	86	98

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Wax	116	.....	116
Wheat	.....	643	643
Wine	80	86	166
Wool	22	730	752
Totals, September, 1928	242,952	603,846	846,798
Totals, September, 1927	169,537	803,180	972,717
Totals, September, 1926	200,296	754,572	954,868

Notaries Public in the Canal Zone.

The following is a list of notaries public commissioned in the Canal Zone as of August 27, 1927. The list gives, by towns, the name, where stationed, and the date of expiration of commission:

ANCON.

Bowen, Vollie S., Land Office, February 27, 1930.
Boyd, Oscar S., Municipal Division, July 30, 1928.
French, A. W., Ancon Hospital, May 14, 1929.
Ohlson, Elmer F., Ancon Hospital, December 3, 1930.
Russell, C. V., Ancon Hospital, April 29, 1930.
Shaeffer, L. E., Office of District Attorney, April 6, 1929.
Sheibley, F. H., District Court, October 27, 1929.

BALBOA.

Hyde, W. H., Port Captain's Office, March 6, 1930.
Kalar, J. D., Port Captain's Office, April 13, 1929.
Kelley, Thomas H., Mechanical Division, August 18, 1930.
Lefever, John E., Fort Amador, February 28, 1931.
Prager, J. F., Balboa storehouse, December 13, 1929.
Smith, Walter R., Balboa storehouse, September 4, 1928.
Stillwell, J. L., Fort Amador, April 20, 1931.

BALBOA HEIGHTS.

Attaway, E. F., Administration Building, room 343, October 28, 1930.
Boggs, W. B., Administration Building, room 316, August 4, 1928.
Buehler, G. H., Administration Building, room 205, August 17, 1928.
Fenton, John A., Administration Building, room 203, July 28, 1930.
Gallagher, A. J., Administration Building, room 204, December 13, 1929.
Illwitzer, P. G., Administration Building, room 270, October 12, 1929.
Schecker, C. A., Administration Building, room 244, January 19, 1930.
Sims, Walter H., Quarry Heights, December 1, 1930.
Taylor, R. G., Administration Building, room 318, April 30, 1930.
Ungar, J., Administration Building, room 301, February 2, 1929.
Wang, Frank H., Administration Building, room 305, April 29, 1929.

COROZAL.

Grimm, G. L., Corozal Hospital, October 6, 1929.
Johnson, Mrs. Anna O., Panama Ordnance Depot, February 26, 1930.

CRISTOBAL.

Atwood, H. E., Commissary Division, April 8, 1930.
Campbell, J. S., District Court, January 28, 1929.
Clarke, V. J., Commissary Division, January 14, 1929.
Concklin, A. W., Commissary Division, April 27, 1929.
Cotton, Charles, Coaling Plant, March 20, 1929.
Daly, E. J., United Fruit Co., May 26, 1929.
Flood, Arthur, Custom's office, November 15, 1928.
Hargy, F. F., Port Captain's office, May 28, 1930.
MacSparran, E. S., Receiving & Forwarding Agency, December 1, 1930.
Murray, P. E., Magistrate, October 13, 1929.
Scarborough, W. W., clubhouse, January 21, 1930.
Slocum, E. L., Chase National Bank, August 10, 1929.
Walsh, W. H., Customs Office, August 5, 1929.
Ellis, Edward E., Coaling Plant, May 24, 1930.

GATUN.

McGahhey, J. T., clubhouse, August 12, 1930.

MOUNT HOPE.

Latimer, J. G., Cristobal storehouse, April 30, 1930.

PARAISO.

Holzapfel, A. F., Dredging Division, August 10, 1929.

PEDRO MIGUEL.

Norris, R. N., Municipal Division, August 11, 1930.
Rader, T. C., Pacific Locks, January 21, 1930.
Wright, A. M., Dredging Division, January 21, 1930.
Cauthers, R. A., Municipal Division, June 16 1930.

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season. Average temperature. Degrees F.
	Average.	Maximum.	Minimum.	
Cristobal (between docks 8 and 9)	1018	1020	1013	84.0
Balboa (dock 18)	1011	1021	1005	83.0

(NOTE—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, White male	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.; Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Section "B:"	
Ward 5, Male, private rooms, American boys	Daily, 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m. (No visitors permitted in nursery.)
Ward 6, Foreign, male and female, private rooms, American girls	
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U.	
Ward 14, American, male, G. U.	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.00 to 4.00 p. m.
Ward 17, Colored children	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 18, White children	Daily, 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 20, Colored, female, surgical, obstetrical	
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

Official Circulars.

Appointments.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *October 16, 1928.*

To all concerned.—Having been appointed as Governor of The Panama Canal, and having duly qualified this date, the undersigned hereby assumes his duties as such.

H. BURGESS.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *October 16, 1928.*

To all concerned.—Col. Julian L. Schley, U. S. Army, is hereby appointed Engineer of Maintenance, effective this date.

H. BURGESS,
Governor.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessels furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 145.

PORT OF BALBOA.

* ARRIVALS.

Date.	Vessel.	Line.	From—
October 10	Anyo Maru	Nippon Yusen Kaisha	Hongkong, China.
October 10	Ginyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
October 10	Chiriqui [34]	Chiriqui Land Co	Pto. Armuelles, R. P.
October 12	El Colon [34]	H. Elliot	El Real, R. P.
October 12	Bessy	H. Elliot	El Real, R. P.
October 12	Dos Hermanos [34]	A. Valdez	Bayano River, R. P.
October 12	A. B. de O'barrio [34]	Pacific Fruit Co	Bayano River, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
October 9	Craftsman [35]	R. J. McArdle Contracting Co	Buenaventura, Colombia.
October 10	Anyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
October 10	Ginyo Maru	Nippon Yusen Kaisha	Hongkong, China.
October 10	Chiriqui [34]	Chiriqui Land Co	Porto Armuelles, R. P.
October 12	El Colon [34]	H. Elliot	El Real, R. P.
October 12	Bessy	H. Elliot	El Real, R. P.
October 12	Dos Hermanos [34]	A. Valdez	Bayano River, R. P.
October 12	A. B. de O'barrio [34]	Pacific Fruit Co	Bayano River, R. P.
October 12	Andogoya	Colombian Government	Buenaventura, Colombia.

[34] Motor schooner. [35] Tug. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., October 24, 1928. No. 12.

Panama-Pacific Line Disposes of "Manchuria."

The steamship *Manchuria* of the Panama-Pacific Line transited the Canal on October 10, 1928, en route from California to New York, via Habana, on her last voyage with the Panama-Pacific Line. It is reported that the ship has been sold to the Dollar Line for delivery after her arrival in New York on October 16.

The *Manchuria* entered the intercoastal service of the Panama-Pacific Line in 1923 with the *Kroonland* and the *Finland*, and has made a total of 68 transits in this trade. During that period she carried 267,427 tons of cargo and 22,257 passengers through the Canal. The total tolls charges against this vessel aggregated $792,625.

The *Manchuria* was built in 1904 by the New York Shipbuilding Corporation of Camden, N. J., and, prior to her entrance in the intercoastal trade, was engaged in the trans-Atlantic service. She is 600 feet long, 65 feet beam, and of 15,445 registered gross tons. She will be replaced in this trade by the new turbo-electric liner *Virginia* which leaves New York on its maiden voyage in December.

Executive Order.

By virtue of the authority conferred upon the President of the United States by Section 4 of the so-called Panama Canal Act, of August 24, 1912, "to complete, govern, and operate the Panama Canal and govern the Canal Zone, or cause them to be completed, governed, and operated, through a governor of the Panama Canal and such other persons as he may deem competent to discharge the various duties connected with the completion, care, maintenance, sanitation, operation, government, and protection of the canal and Canal Zone," I designate the Secretary of State to receive and pass upon all applications for the privilege of operating commercial aircraft between the Canal Zone and foreign countries, and to prescribe the conditions under which permission may be given for such operation, having due regard for the provisions of statutory law on this subject, the rules prescribed thereunder by competent authority in this country, and the applicable rules and regulations of the Panama Canal.

Before final decision shall be reached in a given case, the Secretary of State will consult with the heads of the other interested Executive Departments.

CALVIN COOLIDGE

THE WHITE HOUSE,
September 28, 1928.

[No. 4971]

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

CANAL WORK IN SEPTEMBER, 1928.

The following is the report of the Governor to the Secretary of War, of Canal work in September, 1928.

BALBOA HEIGHTS, C. Z., *October 16, 1928.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of September, 1928:

NUMBER OF TRANSITS.

During the month 487 commercial vessels passed through the Canal. In addition to these, 11 nonseagoing launches, measuring under 20 tons, and 17 vessels belonging to or chartered by the United States Government transited the Canal. There were also two transits of a Panaman Government vessel, one transit of a Colombian Government vessel, and three transits of vessels solely for repairs on which no tolls were collected, making a total of 521 transits for the month, or a daily average of 17.36.

Tolls on the 487 commercial vessels amounted to $2,111,230.56, and on the launches to $88.89, a total of $2,111,319.45, or a daily average on all traffic of $70,377.31.

Commercial traffic for September was the lowest since June, 1928, and the second month since June, 1927, in which the number of transits was lower than 500. Continued depression of the mineral oil traffic, together with light shipments of lumber and wheat, contributed largely to this decrease.

The total numbers of craft of all kinds transiting the Canal during the month of September, 1928, as compared with the same month in 1927 and 1926, are shown in the following tabulation:

	September, 1928.	September, 1927.	September, 1926.
Commercial vessels	487	540	446
Noncommercial vessels (Army and Navy)	17	28	22
Launches (under 20 tons)	11	9	11
Panaman Government vessels	2	1	.....
Colombian Government vessels	1	1	.....
Vessels for repairs	3	2	2
Totals	521	581	481

In addition to the vessels listed above, Panama Canal equipment, consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	9	10	19
Pedro Miguel	28	28	56
Miraflores	27	23	50
Totals	64	61	125

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the calendar year 1928, to the end of September, 1928, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927.	1928.	1927.	1928.	1927.	1928.	1927.	1928.
January	443	540	2,121,631	2,422,770	2,241,765	2,372,061	$1,984,760.71	$2,212,752.50
February	449	547	2,201,328	2,460,111	2,230,107	2,660,425	1,994,860.82	2,253,755.37
March	496	542	2,413,999	2,441,077	2,533,525	2,428,662	2,217,913.20	2,223,370.57
April	464	531	2,224,500	2,384,491	2,429,807	2,473,884	2,065,206.92	2,187,607.82
May	471	508	2,248,892	2,274,612	2,379,713	2,497,588	2,066,070.73	2,118,969.83
June	455	481	2,152,926	2,227,865	2,229,097	2,139,565	1,970,377.97	2,016,211.09
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	2,215,515.99	2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
September	540	487	2,532,942	2,295,053	2,397,753	2,313,011	2,294,432.34	2,111,230.56
Totals	4,370	4,671	20,816,787	21,261,620	21,322,182	21,602,487	19,083,179.23	19,432,050.24

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for September, 1928, as compared with the corresponding month in 1927 and 1926, and the monthly averages for the fiscal year 1928:

	September, 1928.	September, 1927.	September, 1926.	Average per month for fiscal year 1928.
Number of vessels	487	540	446	538
Panama Canal net tonnage	2,295,053	2,532,942	2,186,804	2,454,886
United States net tonnage	1,771,095	1,984,417	1,706,425	1,905,316
Registered gross tonnage	2,909,454	3,224,661	2,770,978	3,100,239
Registered net tonnage	1,777,124	1,978,821	1,708,035	1,903,974
Tolls	$2,111,230.56	$2,294,432.34	$2,019,626.42	$2,245,374.98
Tons of cargo carried	2,313,011	2,397,753	2,239,547	2,469,225

The daily average number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year.
	September, 1928.	September, 1927.	September, 1926.	
Number of transits	16.23	18.00	14.87	17.63
Panama Canal net tonnage	76,502	84,431	72,893	80,488
Tolls	$70,374.35	$76,481.08	$67,320.88	$73,618.85
Tons of cargo carried	77,101	79,925	74,652	80,958

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of September, 1928, as compared with September, 1927 and 1926, are shown in the following tabulation:

	Average per vessel.		
	September, 1928.	September, 1927.	September, 1926.
Panama Canal net tonnage	4,712	4,691	4,903
United States net tonnage	3,636	3,675	3,826
Registered gross tonnage	5,974	5,972	6,213
Registered net tonnage	3,650	3,664	3,991
Tolls	$4,335.18	$4,428.95	$4,528.31
Tons of cargo (including vessels in ballast)	4,750	4,440	5,021
Tons of cargo (laden vessels only)	5,683	5,920	6,114

TOLLS.

At present, tolls are collected at rates of $1.20 per net ton for laden vessels and 72 cents per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed $1.25 per ton nor be less than 75 cents per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined both in accordance with the Panama Canal and the United States rules of measurement.

Due to this limiting proviso the tolls actually collected on laden vessels averaged $0.954 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of September, 1928, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Argentinian	[1] $1,274.50	[1] $1,274.50		
Belgian	14,812.74	14,062.20		$750.54
British	[2] 663,263.55	[2] 676,331.10	$13,067.55	
Chilean	8,665.00	9,410.00	745.00	
Colombian	4,660.50	4,421.20		239.30
Danish	28,648.75	29,887.00	1,238.25	
Danzig	17,790.86	16,450.80		1,340.06
Dutch	41,790.00	47,806.00	6,016.00	
Finnish	4,827.60	4,023.00		804.60
French	41,261.00	42,204.00	943.00	
German	99,779.40	109,165.80	9,386.40	
Greek	8,276.04	6,821.40		1,454.64
Italian	41,202.53	44,774.40	3,571.87	
Japanese	68,050.75	62,717.00		5,333.75
Norwegian	73,519.85	75,030.00	1,510.15	
Panaman	3,499.60	5,245.00	1,745.40	
Peruvian	6,858.55	9,852.00	2,993.45	
Spanish	6,773.75	6,556.00		217.75
Swedish	26,232.74	27,148.20	915.46	
United States	932,782.85	944,547.60	11,764.75	
Yugoslav	17,260.00	17,995.00	735.00	
Totals	2,111,230.56	2,155,722.20	54,632.28	10,140.64
Net increase for all traffic			44,491.64	

[1] Naval vessel paying 50 cents per displacement ton. [2] Includes $7,677.50 collected for naval vessels at 50 cents per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$15,915.59
United States foreign trade	[1] 4,036.84
United States-Canal Zone trade	[1] 114.00
Net increase	11,764.75

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in September, 1928, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian		1.74	1.74
British	.84	1.30	1.07
Chilean	.53	1.11	.82
Colombian	.96	.28	.68
Danish	.39	1.72	1.49
Danzig		1.83	1.83
Dutch	.52	1.36	.83
Finnish		1.82	1.82
French	.47	1.41	1.06
German	.73	1.43	1.11
Italian	.10	1.23	.83
Japanese	1.32	1.32	1.32
Norwegian	.75	1.87	.95
Panaman	.96	.39	.67
Peruvian	.42	.81	.63
Spanish	.13	.47	.32
Swedish	.74	2.32	1.85
United States	.95	1.57	1.32
Yugoslav	1.35	1.91	1.76
Averages, September, 1928	.85	1.49	1.20
Averages, September, 1927	.76	1.61	1.26
Averages, September, 1926	.85	1.54	1.25

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of September, 1928, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	1	4,734	$4,931.25	48	259,927	$268,061.25
Ballast	40	231,059	166,362.48	.....	.....	.....
General cargo ships:						
Laden	180	841,241	785,267.10	180	818,444	777,386.05
Ballast	31	138,599	99,502.55	4	1,049	767.88
Noncargo-carrying ships:						
Naval vessels	1	.....	5,177.50	2	.....	3,774.50
Totals	253	1,215,633	1,061,240.88	234	1,079,420	1,049,989.68
Method of propulsion:						
Steam	196	915,140	824,239.31	179	830,854	812,030.10
Motor	56	300,299	236,854.57	51	244,305	232,953.48
Motor (schooner)	1	194	147.00	.....	.....	.....
Nonpropelled	.....	.....	.....	2	238	178.50
Sail	.....	.....	.....	2	4,023	4,827.60
Totals	253	1,215,633	1,061,240.88	234	1,079,420	1,049,989.68

Of the 375 steam-driven vessels, 237 were oil burning, 133 coal burning, and 5 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of September, 1928. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and Nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cruisers	2	[1] 12,100	$6,050.00	.....	.....	.....
Launches	1	[3] 5	3.75	.....	.....	.....
Submarines	.....	.....	.....	3	[1] 1,455	$727.50
Supply ships	.....	.....	.....	1	[3] 3,434	4,292.50
Survey ships	1	[1] 2,200	1,100.00	1	[1] 2,200	1,100.00
Tugs	1	[1] 1,000	500.00	2	[1] 2,000	1,000.00
U. S. Army vessels:						
Transports	2	[3] 9,672	12,090.00	2	[3] 7,816	9,770.00
Tugs	1	[1] 1,208	604.00	.....	.....	.....
Totals, U. S. Government	8	.....	20,347.75	9	.....	16,890.00
Panaman Government vessels:						
Transports	1	[2] 101	72.72	1	[2] 101	72.72
Colombian Government vessels:						
Supply ships	.....	.....	.....	1	[3] 727	545.25
Vessels for repairs:						
Tankers	1	[3] 1,242	931.50	2	[3] 2,484	1,863.00
Grand totals	10	.....	21,351.97	13	.....	19,370.97

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of September, 1928, carried cargo as follows: Atlantic to Pacific, 703 tons; Pacific to Atlantic, 2,832 tons; total, 3,535 tons.

LAUNCHES UNDER 20 TONS.

The following statement shows the number of launches under 20 tons transiting the Canal during the month of September, 1928. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific	8	74	$59.37
Pacific to Atlantic	3	27	29.52
Totals	11	101	88.89

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of September, 1928, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving....tons	23,811	61,170	84,981
Local cargo shipped....tons	8,753	1,559	10,312
Transit cargo arriving....tons	2,357,508	2,333,004	4,690,512
Transit cargo clearing....tons	2,341,842	2,311,843	4,653,685
Cargo received for transshipment....tons	37,735	1,722	39,457
Cargo transshipped....tons	33,682	1,681	35,363
"Canal Zone for Orders" cargo:			
Number of receipts issued	80	34	114
Number of withdrawals	408	140	548
Tons received	1,688	248	1,936
Tons withdrawn	1,011	193	1,204
Packages received	10,577	4,067	14,644
Packages withdrawn	8,146	1,707	9,853
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company	59	6	65
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company....tons	19,682	118	19,800
Coal issued, miscellaneous:			
Panama Canal departments....tons	61	55	116
U. S. Army, including vessels....tons	55	.....	55
Individuals and companies....tons	111	.....	111
Panama Railroad Company....tons	10	2	12
Transferred to U. S. Navy....tons	10,175	.....	10,175
Total sales and issues....tons	30,094	175	30,269
Coal on hand, September 1, 1928....tons	64,189	.....	64,189
Coal on hand, October 1, 1928....tons	45,050	.....	45,050
Coal received during month....tons	10,955	.....	10,955
Coal received from U. S. Navy....tons	.....	175	175
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments....bbls	8,103.54	13,719.25	21,822.79
Panama Railroad Company....bbls	139.00	.....	139.00
U. S. Army and Navy....bbls	.....	746.79	746.79
Individuals and companies....bbls	.....	164.41	164.41
Total sales and issues....bbls	8,242.54	14,630.45	22,872.99
Fuel oil received during September, 1928....bbls	.....	61,549.40	61,549.40
Fuel oil on hand, October 1, 1928....bbls	75,349.22	76,623.17	151,972.39
Diesel oil sold during September, 1928....bbls	115.11	399.00	514.11
Diesel oil received during September, 1928....bbls	.....	399.00	399.00
Diesel oil on hand, October 1, 1928....bbls	23,671.50	493.25	24,164.75
Miscellaneous transfers....bbls	157.87	233.69	391.56
Gasoline and kerosene pumped for The Panama Canal....bbls	1,814.79	2,924.29	4,739.08
Gasoline pumped for individuals and companies....bbls	.....	4,949.57	4,949.57
Oil pumped for individuals and companies....bbls	445,021.26	625,662.51	1,070,683.77
Oil pumped for U. S. Navy....bbls	.....	4,483.00	4,483.00
Total fuel oil, gasoline, and kerosene handled....bbls	455,351.57	714,831.91	1,170,183.48
Admeasurement of vessels:			
U. S. equivalent certificates issued	14	1	15
Measured for Panama Canal net tonnage	6	.....	6
Remeasured for Panama Canal net tonnage	15	.....	15
Panama Canal net tonnage corrected	4	2	6
U. S. equivalent tonnage corrected	14	2	16
Services of harbor equipment:			
Tugs, total operating hours	432¾	397	829¾
Launches, total operating hours	1,328	1,559	2,887

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc.:			
Tug revenue	$13,177.50	$12,710.00	$25,887.50
Pilotage	17,944.00	7,877.00	25,821.00
Seamen	11,920.00	10,888.00	22,808.00
Launch service	2,042.00	3,000.50	5,042.50
Wharfage	14,310.41	5,294.05	19,604.46
Ships measured	160.00	50.00	210.00
Miscellaneous	1,036.99	1,005.50	2,042.49
Ships repaired at Panama Canal shops:			
Commercial	63	17	80
U. S. Army and Navy	5	9	15
Panama Canal equipment	8	14	22
Totals	76	40	116
Vessels dry docked:			
Commercial		6	6
U. S. Army and Navy	2	4	6
Panama Canal equipment	1	2	3
Totals	3	12	15
Clearances issued	286	263	549
Bills of health issued	291	262	553

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage
Ships entering.						
All vessels, including those transiting Canal	561	3,299,170	2,016,573	525	3,076,147	1,893,727
Vessels entering port but not transiting Canal	70	290,435	175,000	22	58,782	42,476
Vessels transiting Canal and handling passengers and cargo at terminal ports	108	646,261	390,052	100	569,638	347,891
Ships clearing.						
All vessels, including those transiting Canal	557	3,276,658	2,003,165	517	3,042,855	1,866,863
Vessels clearing port but not transiting Canal	67	277,767	167,473	18	54,611	39,021
Vessels transiting Canal and handling passengers and cargo at terminal ports	104	629,408	379,192	98	568,392	347,200

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,588	1,085	2,673	200	702	902
From Pacific ports	166	179	345	293	175	468
Total disembarking	1,754	1,264	3,018	493	877	1,370
Embarking:						
For Atlantic ports	1,481	658	2,139	196	188	384
For Pacific ports	293	116	409	236	275	511
Total embarking	1,774	774	2,548	432	463	895
Remaining on board:						
From Atlantic to Pacific ports	1,351	3,083	4,434	1,259	2,627	3,886
From Pacific to Atlantic ports	1,101	1,427	2,528	1,156	1,382	2,538
From Atlantic to Atlantic ports	517	144	661	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	8	130	138
Total remaining on board	2,969	4,654	7,623	2,423	4,139	6,562
Total arriving	4,723	5,918	10,641	2,916	5,016	7,932
Total departing	4,743	5,428	10,171	2,855	4,602	7,457

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	253	53	20.9
Pacific to Atlantic	234	66	28.2
Totals	487	119	24.4

In addition to the aforesaid, 62 passenger-carrying vessels called at the port of Cristobal and 1 at the port of Balboa, without transiting the Canal, making a total of 182 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of September, 1928:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$2,493.97	$11,543.83	$27,658.36	$60.79	$5,851.66	$47,608.61
Government vessels	127.50	112.24	4,336.03	26.59	501.20	5,103.56
Panama Railroad vessels	.....	97.06	28,878.04	904.30	519.94	4,399.34
Total sales, September, 1928	2,621.47	11,753.13	34,872.43	991.68	6,872.80	57,111.51
Total sales, September, 1927	2,517.59	10,636.49	29,208.69	1,367.43	5,295.76	49,025.96
Total sales, September, 1926	2,217.44	9,000.16	23,901.19	897.17	6,190.85	42,206.81
Sales at Balboa to:						
Commercial vessels	1,283.70	9,981.77	23,694.36	559.81	4,808.83	40,328.47
Government vessels	235.10	1,911.57	13,831.18	743.55	1,108.47	17,829.87
Panama Railroad vessels	.....	.....	8.60	38.97	.42	47.99
Total sales, September, 1928	1,518.80	11,893.34	37,534.14	1,342.33	5,917.72	58,206.33
Total sales, September, 1927	2,056.47	12,880.50	33,180.92	864.95	4,238.62	53,221.46
Total sales, September, 1926	823.84	9,736.89	12,930.07	847.61	2,463.71	26,802.12

The aggregate sales to Government vessels during the month was $22,933.43; to Panama Railroad vessels, $4,447.33; and to other commercial vessels, $87,937.08, making the total sales to all vessels, $115,317.84.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of September, 1928, as compared with the corresponding month in 1927 and 1926:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Sept., 1928.	Sept., 1927.	Sept., 1926.
Gatun	221	243	464	6	5	11	475	536	439
Pedro Miguel	228	248	476	10	13	23	499	558	468
Miraflores	230	246	476	8	9	17	493	551	461
	Number of vessels put through locks.								
Gatun	233	253	486	28	29	57	543	623	505
Pedro Miguel	233	256	489	48	42	90	579	631	581
Miraflores	233	256	489	47	41	88	577	628	561

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	22	22	22
Panama Canal equipment	19	52	50
Launches (under 20 tons)	10	10	10
Panaman Government vessels	2	2	2
Colombian Government vessels	1	1	1
Vessels for repairs	3	3	3

The total consumption of water for lockages, and loss in leakage was as follows in September, 1928, as compared with the preceding month and the corresponding month in 1927:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,897,410,000	1,557,400,000	1,504,900,000
Leakage	20,000,000	30,000,000	20,000,000
Totals, September, 1928	1,917,410,000	1,587,400,000	1,524,900,000
Totals, August, 1928	2,142,910,000	1,733,530,000	1,627,800,000
Totals, September, 1927	2,136,840,000	1,809,910,000	1,706,350,000

HYDROGRAPHY.

In the following tabulation the hydrographic conditions in the Canal Zone and vicinity during the month of September, 1928, are shown in comparative form:

	September.		September—Years of record.		
	1928.	1927.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Chagres River at Alhajuela:					
Monthly mean discharge	3,416	5,022	5,022	1,722	3,215
Maximum momentary discharge	18,906	26,150	[1] 33,600	.....	.....
Gatun Lake watershed:					
Total yield	8,949	10,845	11,946	6,684	9,138
Net yield	8,365	10,254	11,238	6,072	8,555
Draft on Gatun Lake for lockages and power	2,752	2,863	2,863	[2] 1,322	[2] 2,246

[1] September 6, 1917. [2] Not including September, 1914.

The total yield of the Gatun Lake watershed for the month of September was 2 per cent below the 15-year September average, or 8,949 c. f. s. compared with an average of 9,138 c. f. s. Maximum and minimum September total yields of record are 11,946 c. f. s. in 1917, and 6,684 c. f. s. in 1920, respectively. The lake varied in elevation from 85.40 feet on the 5th to 85.92 feet on the 30th, averaged 85.59 feet, and ended at elevation 85.90 feet. There was an increase in storage during the month of 1,734 million cubic feet, the equivalent of .38 foot on Gatun Lake. The net yield for the month amounted to 21.7 billion cubic feet.

Miraflores Lake varied in elevation from 53.28 feet on the 30th to 54.50 feet on the 15th, average 53.98 feet, and ended at elevation 53.42 feet. Two hundred and twenty-six c. f. s. were wasted over Miraflores spillway.

SEISMOLOGY.

Two seismic disturbances were recorded during the month, on the 26th and 28th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 4,698,000 kilowatt hours, and the computed water consumption was 3,678,166,574 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 1,600 kilowatt hours, with a fuel oil consumption of 18.71 barrels.

In addition to the usual operating and maintenance work performed, 62 work orders, comprising 106 items of additions or repairs, were completed on 30 vessels during the month. There were 349 work orders issued during the month, as compared with 411 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 76 vessels at Cristobal and 40 at Balboa. Three vessels were dry-docked at Cristobal and 12 at Balboa. The annual overhaul of the submarines *O–7* and *O–10* was continued during the month at Cristobal, and the work on the *O–7* was advanced to about 95 per cent of completion. At Balboa the annual overhaul of the U. S. Navy tug *Sciota* and of the submarines *O–6*, *O–8*, and *O–9* was continued during the month.

MUNICIPAL ENGINEERING DIVISION.

Work was performed on several improvements in the cities of Colon and Panama, and in the Canal Zone. The usual maintenance work was performed on roads, streets, and walks, and the sewer and water systems. The amount of water pumped during the month totaled 683,434,250 gallons.

DREDGING DIVISION.

East and West Culebra slides showed a slight movement toward the Canal during the month. There were no other slides and no delays to shipping during the month.

The total excavation during September was 284,750 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Project No. 2, Lirio curve	2,600	23,350	25,950
Project No. 9, West Culebra basin	5,650	50,950	56,600
Maintenance	2,800	2,800	5,600
Balboa inner harbor—			
Project No. 1	.....	58,800	58,800
Maintenance	17,200	.....	17,200
Plant excavation:			
Naval Air Station fill, Coco Solo	120,600	.....	120,600
Totals	148,850	135,900	284,750

The ferry crossing at the north end of Pedro Miguel lock operated 30 days during the month. Four hundred and eighty-four trips were made, and 93 Panama Canal, 81 U. S. Army, and 2,401 other vehicles, a total of 2,575, were ferried across the Canal.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on September 30, 1928, totaled 21,656, composed of 7,392 Americans, 2,643 of whom were men, 2,218 women, and 2,531 children; 211 Europeans, 100 of whom were men, 32 women, and 79 children; and 14,053 West Indians, 4,159 of whom were men, 2,606 women, and 7,288 children. The total number of persons in quarters on September 30, 1927, was 21,051.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of September 19, 1928, with a comparison of the working force for the preceding month and for September, 1927:

	As of September 19, 1928.			Total employees.	
	Gold.	Silver.	Total.	August, 1928.	September, 1927.
Operation and Maintenance:					
Office	40	58	98	100	80
Electrical	153	160	313	310	314
Municipal Engineering	82	694	776	764	642
Lock Operation	226	684	910	917	852
Dredging	178	907	1,085	1,084	1,088
Mechanical	476	839	1,315	1,298	1,296
Marine	208	729	937	924	911
Fortifications	24	350	374	372	230
Totals	1,387	4,421	5,808	5,769	5,413
Supply Department:					
Quartermaster	199	1,786	1,985	1,913	1,905
Subsistence	8	101	109	108	105
Commissary	218	1,174	1,392	1,391	1,309
Cattle Industry	4	127	131	133	224
Hotel Washington	9	93	102	105	106
Transportation	53	210	263	265	254
Totals	491	3,491	3,982	3,915	3,903
Accounting Department	194	8	202	204	210
Health Department	282	872	1,154	1,141	1,045
Executive Department	484	298	782	778	780
Totals	960	1,178	2,138	2,123	2,035
Panama Railroad Company:					
Superintendent	49	270	319	304	261
Transportation	67	117	184	186	174
Receiving & Forwarding Agency	88	1,359	1,447	1,331	1,488
Coaling stations	48	265	313	292	323
Totals	252	2,011	2,263	2,113	2,246
Grand totals, September, 1928	3,090	11,101	14,191	.....	.....
Grand totals, August, 1928	3,080	10,840	.....	13,920	.....
Grand totals, September, 1927	2,976	10,621	.....	.....	13,597

Additions to the gold force on the Isthmus in September were as follows: Employed in the United States, 4; reemployed in the United States, 4; employed on the Isthmus, 24; reemployed on the Isthmus, 14; total, 46. Separations from the gold force totaled 36, as follows: Resigned, 28; discharged, 4; retired, 2; died, 2. At the end of the month there were on file 117 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 224 deaths occurred during the month of September, 1928, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 20.75 per 1,000 population. The leading causes of death were: Pneumonia (broncho and lobar), 45; tuberculosis (various organs), 31; nephritis (acute and chronic), 22; organic diseases of the heart, 14; and diarrhea and enteritis, 13. There were 4 deaths from apoplexy, 3 from influenza, and 1 each from typhoid fever, diphtheria, amebic dysentery, and tetanus. There were 23 deaths among nonresidents. These are not included in the above statistics.

There were 344 live births, and 13 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 33.08 per 1,000 population. Deaths among children under 1 year of age numbered 56, giving an infant mortality rate of 162.79.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during September was 112, of whom 13 were employees (5 white and 8 colored), 15 were members of employees' families (2 white and 13 colored), 10 were Canal Zone agriculturists, 33 were other civilian nonemployees, and 41 were Army and Navy personnel. Of the 28 employees and members of employees' families, 19 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick. There was 1 death from malaria, a nonresident child.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $407,101.75, of which $377,379.14 was for the Department of Operation and Maintenance and $29,722.61 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to $35,907.51.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of August, 1928, as compared with August, 1927, with the figures for the first two months of the current fiscal year as compared with the same period in the fiscal year 1928.

It is impossible to submit figures for the month of September at the time of writing this report, since all charges, etc., involved in the accounting have not been completed.

	August, 1928.	August, 1927.	To end of August.	
			This year.	Last year.
Tolls	$2,199,111.70	$2,274,110.06	$4,306,444.49	$4,489,767.56
Other receipts	325,592.53	287,013.30	619,343.08	571,654.93
Total transit revenues	2,524,704.23	2,561,123.36	4,925,787.57	5,061,422.49
Total transit expenses	1,059,646.07	973,374.93	2,112,951.77	1,909,018.65
Net transit revenues	1,465,058.16	1,587,748.43	2,812,835.80	3,152,403.84
Three per cent capital charge	614,967.80	609,617.18	1,230,777.54	1,219,173.84
Transit surplus	850,090.36	978,131.25	1,582,058.26	1,933,230.00
Business revenues	1,227,998.87	1,253,927.54	2,508,024.87	2,545,033.51
Business expenses	1,199,666.83	1,188,775.34	2,393,190.65	2,389,342.08
Net business revenues	28,332.04	65,152.20	109,834.22	155,691.43
Three per cent capital charge	60,191.87	59,762.25	120,294.66	118,857.41
Business surplus or deficit	[1] 31,859.83	5,389.95	[1] 10,460.44	36,834.02
Combined revenues	3,762,703.10	3,815,050.90	7,428,812.44	7,606,456.00
Combined expenses	2,259,312.90	2,162,150.27	4,506,142.42	4,298,360.73
Net revenue	1,493,390.20	1,652,900.63	2,922,670.02	3,308,095.27
Three per cent capital charge	675,159.67	669,379.43	1,351,072.20	1,338,031.25
Combined surplus	818,230.53	983,521.20	1,571,597.82	1,970,064.02

[1] Indicates deficit.

Respectfully,

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, October 20, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Boskoop	13	7.47	14	6.10	14	13.10	14	23.50	Dutch	Royal Neth. S. S. Co.	400.0	58.0	21.5	Hamburg, Germany	Corral, Chile	General	3,974	7,817	6,097
Canadian Importer	13	19.15	14	6.10	14	13.20	14	14.38	British	Can. Nat. Steamships	400.0	52.0	17.0	Montreal, Canada	Vancouver, B. C.	General	2,500	5,891	4,186
Norfolk	14	2.40	14	7.20	14	14.06	15	19.40	British	N. Z. Shipping Co	520.0	64.0	25.0	Middlesboro, Eng.	Wellington, N. Z.	General	8,534	12,963	9,291
Silvermaple [2]	14	4.25	14	7.50	14	14.25	14	15.34	British	Silver Line, Ltd	425.0	58.0	22.0	New York, N. Y.	Manila, P. I.	General	4,721	8,216	6,037
West Honaker [2]	14	2.50	14	9.00	14	15.46			American	Roosevelt S. S. Co., S. B.	410.0	54.0	20.0	New York, N. Y.	Calcutta, India	General	4,973	6,736	4,881
Sapelo [1]	13	23.10	14	9.35	14	16.06	16	2.15	American	U. S. Navy	461.0	60.0	20.0	Hampton Roads, Va.	Los Angeles, Calif				
Santa Cruz	13	23.35	14	10.00	14	16.55	14	18.00	American	Grace Line	394.0	50.2	16.2	New York, N. Y.	Callao, Peru	General	1,976	5,534	3,868
Karpfanger	14	8.55	14	10.10	14	18.47	14	20.25	German	G. J. H. Siemers & Co	407.5	54.0	26.0	Port Arthur, Texas	Hongkong, China	(4)	7,600	6,622	4,885
Canadian Traveler	14	8.40	14	12.23	14	19.25	14	20.55	British	Can. Nat. Steamships	399.0	52.0	19.11	Montreal, Canada	Geelong, Australia	General	2,042	5,894	4,193
K. R. Kingsbury [1]	14	18.35	14	18.55	15	11.39	15	16.15	American	Standard Oil Co	440.0	58.2	22.0	Baltimore, Md	Los Angeles, Calif	Ballast		9,033	5,938
Hazelside	14	19.20	14	20.55	15	12.34	15	16.00	British	Charlton S. S. Co	395.0	52.7	17.0	Leghorn, Italy	Vancouver, B. C.	Ballast		5,676	4,200
Vermont	14	8.23	15	6.00	15	13.28	15	16.00	French	French Line	399.0	52.0	16.6	Havre, France	Talcahuano, Chile	General	2,108	5,822	4,122
Corinto	9	16.28	15	6.05	15	14.38	15	16.00	American	Panama Mail S. S. Co.	261.0	40.0	17.7	Cristobal, C. Z.	San Francisco, Cal.	General	2,252	2,352	1,549
Sudawsonco	15	00.40	15	6.15	15	14.15	15	15.40	American	Transmarine Lines	324.0	46.0	17.8	Newark, N. J.	Los Angeles, Calif	General	1,500	3,984	2,628
Chateau Thierry [3]	15	5.20	15	7.33	15	14.58	16	12.25	American	U. S. Army	437.0	58.0	24.0	New York, N. Y.	Honolulu, T. H.	Army supplies	497		
San Mateo	15	5.15	15	7.10	15	15.56	15	16.50	American	United Fruit Co	315.2	44.2	18.10	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	813	3,496	2,141
Point Fermin	15	4.55	15	7.33	15	16.05	15	17.30	American	Swayne & Hoyt	324.0	46.2	20.0	Houston, Texas	Vancouver, B. C.	General	2,871	3,984	2,617
Knoxville City	15	7.15	15	8.28	15	16.39	15	22.55	American	Isthmian S. S. Lines	425.0	56.0	25.9	Baltimore, Md	Tacoma, Wash	Steel, general	8,201	7,611	5,450
City of Brisbane	15	1.10	15	9.35	15	17.14	15	18.37	British	Ellerman & Bucknall	462.9	58.5	23.5	New York, N. Y.	Adelaide, Australia	General	4,750	9,392	7,039
Matakana	15	3.35	15	11.10	15	19.56	15	21.00	British	Shaw, Savill & Albion	477.0	63.0	29.5	Glasgow-England	Dunedin, N. Z.	General	6,360	11,216	7,884
Durazzo	13	21.05	15	12.20	15	20.50	15	22.04	German	Hamburg-American Line	226.5	34.0	14.0	Cristobal, C. Z.	Buenaventura, Col.	Passengers		1,633	1,041
Paraguay	12	13.45	15	12.50	15	20.20	15	21.35	German	Hamburg-American Line	385.9	52.7	21.6	Hamburg, Germany	Valparaiso, Chile	General	3,409	5,279	4,034
Sidney M. Hauptman	15	14.05	15	14.20	15	21.15	15	22.20	American	Munson, McCor'k Line	401.0	53.0	26.0	Baltimore, Md	Tacoma, Wash	General, steel	7,181	7,082	5,167
Lincoln Ellsworth [1] [2]	15	19.10	16	6.10	16	12.52	16	16.15	Norwegian	Gen. Petroleum Corp	385.0	55.0	18.0	Liverpool, England	San Francisco, Cal.	Ballast		5,786	3,627
Havana Maru	16	6.45	16	7.10	16	14.18	16	15.30	Japanese	Osaka Shosen Kaisha	407.0	51.0	22.0	Philadelphia, Pa.	Shanghai, China	General	4,430	6,538	4,769
Orkanger [1] [2]	15	17.40	16	8.25	16	15.15	16	21.20	Norwegian	Westfal, Larsen & Co	458.0	59.8	18.0	Havre, France	Los Angeles, Calif	Ballast		8,291	5,822
Cedar Branch	16	4.45	16	9.38	16	16.32	16	18.10	British	F. & W. Ritson	390.5	51.0	20.0	Newcastle-on-Tyne	Talcahuano, Chile	General	3,100	4,927	3,597
Martha [2]	13	23.05	16	12.55	16	20.50	16	22.25	Norwegian	H. C. Stevenson	181.0	30.0	13.9	Cristobal, C. Z.	Pto. Armuelles, R. P.	General	1,056	780	504
Pat Doheny [1]	16	13.40	16	13.50	16	21.24	16	22.25	American	Richfield Oil Co	430.2	59.2	18.0	Warners, N. J.	Los Angeles, Calif	Ballast		7,978	5,840
Sunbeam [1]	16	17.50	16	18.05	17	10.57	17	12.10	American	Sun Oil Co	429.3	59.2	16.0	New York, N. Y.	Los Angeles, Calif	Ballast		7,709	5,562
Homeside	17	1.40	17	6.20	17	12.54	17	14.05	British	Louis Dreyfus	384.0	52.3	15.0	Oran, Algeria	Vancouver, B. C.	Ballast		5,127	3,718
American	16	22.55	17	6.25	17	13.03	17	14.05	American	Amer.-Hawaiian Line	404.6	54.0	19.6	Boston, Mass	Tacoma, Wash	General	3,413	6,777	4,761

[1] Tanker. [2] Motor ship. [3] U. S. Army transport. [4] Case oil, kerosene, and gasoline.

K. I. Luckenbach	17	5.05	17	7.20	17	13.50	17	18.23	American	Luckenbach Line	446 0	56.0	26.0	Boston, Mass	Seattle, Wash	General	5,785	8,552	6,236
Stella	10	16.22	17	11.00	17	18 05	17	20.40	Norwegian	Panama Mail S. S. Co.	195.0	32.0	16 8	Cristobal, C. Z	Champerico, Guat	General	1,265	985	606
Collegian	16	16.10	17	11.45	17	18.44	17	19.40	British	T. & J. Harrison	455.4	56 0	19 10	Liverpool, England	Vancouver, B. C.	Ballast		7,712	5,437
Colombia	16	2.50	17	14.12	17	20.50	18	13.45	American	Panama Mail S. S. Co.	380.0	48 7	25.9	New York, N. Y.	San Francisco, Cal.	General	3,304	6,015	4,281
Lio [1 2]	17	16.00	17	16.15	18	17.06	18	18.31	American	Standard Transp. Co.	431.0	59.2	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,846	5,112
Santa Teresa	17	20.35	18	6.10	18	13 20	18	17.24	American	Grace Line	360 2	51.6	23 9	New York, N. Y.	Talcahuano, Chile	General	2,281	5,726	4,086
Niobe [1]	17	20.30	18	6.15	18	14.02			Danzig	Standard Shipping Co.	476.8	62.3	17.0	Rio de Janeiro, Br	Talara, Peru	Ballast		8,914	6,674
San Francisco [2]	17	5.40	18	6.08	18	14.38	18	15.35	German	Hamburg-AmericanLine	432.0	59 0	25.0	Hamburg,Germany	Portland, Oreg.	General, bananas	5,592	8,454	6,344
W. S. Rheem [1]	17	23.50	18	7.15	18	15 11	18	22.35	American	Standard Oil Co	500.0	68 2	20 5	London, England	Los Angeles, Calif.	Ballast		11,224	7,895
Chifuku Maru	18	00.10	18	8.25	18	15.32	18	16.50	Japanese	Kokusai Kisen Kaisha	385 0	51.0	20.0	Norfolk, Va.	Shanghai, China	Tobacco, autos	2,154	5,919	4,400
Carlton	18	2.05	18	9.35	18	16.10	18	20.22	British	R. Chapman & Son	390 0	53 2	16.0	Pto. Ferraio, Italy	Vancouver, B. C.	Ballast		5,612	4,119
Dochet	18	5.00	18	9.45	18	17.54	18	19.07	American	Redwood Line	386 8	52.2	20.6	Mobile, Ala	San Francisco, Cal.	General	5,680	5,706	4,167
Santa Eulalia	18	9.45	18	10.05	18	17.27	18	23.15	American	Amer. & Cuban Line	251.0	43.0	23.0	Baltimore, Md	Hilo, T. H.	[6]	2,741	2,823	1,730
Standard Arrow [1]	18	7.00	18	11.40	18	18.30	18	20.00	American	Standard Transp. Co.	467.6	62 7	21.0	Boston, Mass	Los Angeles Calif.	Ballast		9,698	6,783
Fella [2]	18	6.00	18	13.10	18	20.51	18	22.00	Italian	Nav. Libera-Triestina	430.9	55.0	16.0	Trieste, Italy	Vancouver, B. C.	General	2,197	7,784	5,863
George Washington [2]	18	17.25	19	6.00	19	13.24	20	20.55	Norwegian	Fred Olsen & Co	425.5	55.0	20.6	Antwerp, Belgium	Vancouver, B. C.	General	5,347	7,505	5,627
Cathwood [1]	18	00.20	19	6.10	19	14.23	19	15.25	American	Union Oil Co	435.0	56.0	19.0	Cristobal, C. Z	Los Angeles, Calif.	Ballast		7,481	5,143
President Harrison	19	4.20	19	7.20	19	14.11	19	21.20	American	Dollar Line	502.1	62.2	25.0	New York, N. Y.	Around the world.	General	5,175	12,031	8,495
Mantaro	13	20.50	19	7.05	19	15.12	19	16.30	Peruvian	Peruvian Line	360.0	46.0	17.2	Cristobal, C. Z	Callao, Peru	General	356	4,838	2,959
East Indian [2]	19	6.15	19	8.30	19	15 55	19	17.15	American	Ford Motor Co	445.0	58 0	27.6	Baltimore, Md	Vancouver, B. C.	General	8,020	8,787	6,275
Preradovic	19	7.48	19	9.20	19	16.17	19	17.55	Yugoslav	Yugoslav-Am. Nav.Co	420.5	54.5	25.0	Cardiff, England	Antofagasta, Chile.	[7]	6,849	6,362	4,722
Hollywood	19	4.35	19	9.35	19	16 43	19	17.55	American	C. R. McCor'k S.S. Co.	410.0	54 0	17 0	Buenos Aires, Arg	Vancouver, B. C.	General	1,888	6,584	5,030
Marsodak	19	8.25	19	10.20	19	17.11	19	23.13	American	Charles Nelson & Co.	324.0	46.2	19 0	Baltimore, Md	San Francisco, Cal.	General, steel	2,880	3,984	2,628
Motrix [1]	19	9.40	19	13.35	19	20.12	20	00.15	French	Cia. de Nav. Mixte	422.5	57 6	22 0	Rouen, France	Los Angeles, Calif.	Ballast			
Moerdijk	18	15.35	19	15 04	19	22 02	19	23.13	Dutch	Holland-American Line	473 0	61 0	20 9	Rotterdam,Holland	Vancouver, B. C.	General, bananas	4,080	9,165	7,056
Uribe	10	20.10	20	6.10	20	13.40	20	15.00	German	Estrada G. Hermanos	227 4	31 7	12 2	Cristobal, C. Z	Buenaventura, Col.	General	813	1,154	663
Baralt	15	16.40	20	6.00	20	13.20	20	14.40	Dutch	Royal Neth. S. S. Co.	200.0	33.0	12 5	Cristobal, C. Z	Buenaventura, Col.	General	130	1,183	742
Apure [1]	19	20.30	20	6.08	20	13.12			Venezuelan	Venezuela Gulf Oil Co.	325.0	55.0	12.0	Maracaibo, Venez.	Balboa, C. Z	Ballast			
Pacific Reliance [2]	19	13.03	20	7.13	20	14.22	20	15.15	British	Furness, Withy & Co	435 9	60.0	18 4	Glasgow-England	Vancouver, B. C.	General, bananas	1,275½	9,644	6,967
A. L. Kent	19	20.50	20	7.13	20	15.30	20	16.41	American	Norton, Lilly & Co	394.1	55.1	28.3	Baltimore, Md	Los Angeles, Calif.	Steel, general.	8,160	7,047	5,132
Greystoke Castle [2]	19	21.15	20	8.15	20	16 15	20	17.03	British	Barber S. S. Line	428 0	56.1	21.0	New York, N. Y.	Shanghai, China	General	4,569	7,596	5,179
King Malcolm [2]	19	21 35	20	8 47	20	16 21	20	19.55	British	Empire Shipping Co	400.3	59.0	17.0	Hull, England	Vancouver, B. C.	Ballast		7,367	5,561
Manizales	16	18.05	20	9.48	20	17.20	20	19.25	German	North German Lloyd	216.0	32.0	13.3	Cristobal, C. Z	Guayaquil,Ecuador	General	133	1,132	741
Sonora	19	16.30	20	10 00	20	17.16	20	18.24	French	French Line	388.0	54 2	21.8	Havre, France	Vancouver, B. C.	General, iron	3,849	6,394	4,464
Acajutla	10	17.45	20	10 35	20	18.05	20	20.30	British	Pacific Steam Nav. Co	215.7	33.5	17.2	Cristobal, C. Z	Champerico, Guat	General	1,163	1,273	706
All America [5]	16	19.00	20	12.30	20	20 00			American	All America Cable Co	270.0	37.0	16 0	High seas	Balboa, C. Z	Cable equipment		1,919	875
Orinoco	20	12.05	20	12.15	20	19.37	20	20.55	American	Quaker Line	381.0	52.3	20.0	Norfolk, Va.	Seattle, Wash	General	4,650	5,455	3,902
Fernbank [2]	20	13.25	20	13.35	20	20.35	21	00.30	Norwegian	Fern Line	382.0	53.3	25.0	Tampa, Florida	Shanghai, China	[8]	6,757	6,112	4,265
Sinnington Court	20	12.13	20	14.30	20	22.45	21	00.30	British	Heatley & Co	420.0	56.2	15.0	Tyne, England	Vancouver, B. C.	Ballast			

[1] Tanker. [5] Cable ship. [6] Tinplate, sulphate, ammonia, and general. [7] Coal and patent fuel. [8] Phosphates and cotton.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
U. S. S. Swan [9]	...	.....	14	6.27	14	13.10	...	.....	American	U. S. Navy	188.0	35.6	....	Balboa, C. Z.	Cristobal, C. Z.	.....	.....	.....	.....
Plow City	13	23.20	14	7.15	14	14.35	14	14.35	American	Charles Nelson & Co.	324.0	46.2	23 2	San Francisco, Cal.	Baltimore, Md.	Copper, general	4,350	3,983	2,631
August Leonhardt	13	23.55	14	7.19	14	14.37	14	18 58	German	Cia. Mar. Colombiana.	345 0	46.0	14 0	Buenaventura, Col.	New York, N. Y.	Coffee, general	337	3,724	2,817
Herakles	13	23.50	14	8.14	14	15 55	14	17 00	Norwegian.	Brunsgaard & Co	389 8	54 1	23 5	Los Angeles, Calif.	Rotterdam, Holland	General	7,400	5,680	4,221
Vinland [10]	14	00.20	14	8 20	14	16.40	14	16 40	Norwegian.	Scand.-So. Pacific Co.	368 5	53.7	24 1	Iquique, Chile.	Europe [12]	Nitrates	7,232	5,413	3,965
Santa Isabel	14	9.45	14	10.48	14	17.40	15	00 47	American	Isthmian S. S. Lines	251 0	43 6	15.0	Honolulu, T. H.	New York, N. Y.	Canned fruits	1,165	2,823	1,740
K. Ktistakis	14	17 15	14	18 05	15	12 10	15	12.10	Greek	K. Ktistakis	385 0	49 9	24 6	Tocopilla, Chile	Azores [12]	Nitrates	7,117	4,885	3,479
Havre Maru	14	13 50	15	6.15	15	13.50	15	19 50	Japanese	Osaka Shosen Kaisha	407 2	50 8	17 8	Hongkong, China.	Boston, Mass.	General	2,618	6,539	4,773
Sunewarkco	14	21.00	15	6.36	15	14.35	15	14 35	American	Transmarine Lines.	324 0	46 2	23 0	Bellingham, Wash	New York, N. Y.	Lumber	3,750	3,984	2,628
Ferncliff [10]	15	00.12	15	7.21	15	15 40	15	17.35	Norwegian.	Fearnley & Eger	382 8	53 4	26 0	Saigon, China	Habana, Cuba	Rice in bags	7,648	6,112	4,284
Baralt	15	6 00	15	7.51	15	16 40	20	6 00	Dutch	Royal Neth. S. S. Co.	210.0	33 0	13 0	Guayaquil, Ecuador	Cristobal, C. Z.	General	264	1,183	742
Essequibo	15	1 50	15	8.10	15	18.03	15	22.10	British	Pacific Steam Nav. Co	450 0	57 8	23.7	Talcahuano, Chile	New York, N. Y.	General	3,200	9,037	6,176
City of Panama [10]	15	8 00	15	9 05	15	17.00	...	.....	Panaman	Panama Mail S. S. Co.	296 9	45.9	17.6	San Francisco, Cal.	Cristobal, C. Z.	General	443	3,848	2,603
Elax [1]	15	8.30	15	12 56	15	19 45	17	9.50	British	Anglo-Saxon Pet. Co.	440 0	59 5	26 6	San Francisco, Cal.	Alexandria, Egypt	Bulk kerosene	9,100	7,897	4,778
Legazpi	14	23 55	15	13.19	15	21 10	16	18.40	Spanish	Cia. Transatlantica	375 6	47 0	18 0	Valparaiso, Chile	Barcelona, Spain	General	597	4,506	2,827
Tottori Maru	15	14.15	15	14 58	15	22 05	16	6 08	Japanese	Nippon Yusen Kaisha.	422 5	55 6	23 0	Yokohama, Japan	London, England	Salmon	6,420	6,444	4,667
Venezuela	15	3.27	16	6 28	16	13 12	17	15 40	American	Panama Mail S. S. Co.	380 0	48 7	21 4	San Francisco, Cal.	New York, N. Y.	General	2,925	6,033	4,353
Montrolite [1] [10]	15	15.50	16	6.39	16	14 25	16	14 25	British	Imperial Oil Co., Ltd	510 9	68 3	29 5	Talara, Peru	Montreal, Canada	Crude oil	15,265	11,555	7,639
Canadian Miller	15	18 34	16	7 00	16	15 50	16	20 05	British	Can. Nat. Steamships	400 0	52 3	24 0	Vancouver, B. C.	Montreal, Canada	Lumber, general.	5,604	5,892	4,186
Calmar	16	1.15	16	8 26	16	16 40	16	16 40	American	Amer.-Hawaiian Line	384 6	51 2	25 2	San Francisco, Cal.	Philadelphia, Pa.	General	6,482	6,347	4,453
Suportco	16	1 30	16	8.56	16	17 55	16	17 55	American	Transmarine Lines	324 0	46 2	23 6	Tacoma, Wash.	Newark, N. J.	Lumber	4,200	3,984	2,612
Ani	16	00.15	16	9 25	16	18.50	16	21.05	Belgian	Cia. Inter. D'Com. et D'Armement.	400 5	52.1	29 6	Iquique, Chile.	Azores [12]	Nitrates	8,160	6,617	4,792
Hartbridge	16	4.00	16	9.43	16	19.05	16	22.20	British	Crosby-Magee & Co.	390.0	55.0	25 6	Vancouver, B. C.	Boston, Mass.	Lumber	7,400	6,179	4,521
Adolf Von Baeyer	16	8.40	16	10.15	16	19 35	17	21 30	German	Hamburg-American Line	409 8	53 9	23.0	Antofagasta, Chile.	Hamburg, Germany	General	6,273	7,173	5,514
Manizales	16	4.30	16	10.42	16	18.05	20	9 48	German	Roland Line	210 0	33 0	12 3	Guayaquil, Ecuador	Cristobal, C. Z.	General	442	1,132	741
Texas	16	10.45	16	11.40	16	20.05	18	15.40	French	French Line	409 2	52.6	26 8	Vancouver, B. C.	Havre, France.	General	6,955	6,824	4,885
Horace Luckenbach	16	14.25	16	15.09	16	21.45	16	21 45	American	Luckenbach Line	445.0	58.0	29.6	Portland, Oreg.	Boston, Mass.	General	10,458	8,699	6,363
Kensington Court	16	20.00	17	7.02	17	14.35	17	14.35	British	Haldin & Co	396.0	53 2	24.0	Portland, Oreg.	Valencia, Spain.	Wheat	7,100	5,524	3,754
Richmond [11]	17	2.00	17	7.16	17	14.45	17	17.20	American	Aikin Towboat Co.	135.0	27 5	15.0	Buenaventura, Col.	Habana, Cuba	.....	.....	426	324
Pacific Enterprise [10]	17	1.30	17	7.50	17	15.15	17	15.15	British	Furness, Withy & Co.	435.0	60 2	27.0	Vancouver, B. C.	Glasgow-Scotland.	General	7,904	9,641	6,989
Apurimac	3	6.15	17	12.41	17	21.15	17	21.15	Peruvian	Peruvian Line	382 0	48.2	27.4	Callao, Peru	GothenburgSweden	Sugar	5,430	4,867	3,544
Californian [10]	17	12.30	17	13.14	17	20.10	19	9.25	American	Amer.-Hawaiian Line	445.1	59.8	29.0	Portland, Oreg.	Boston, Mass.	General	10,641	8,567	6,020

[1] Tanker. [9] Minesweeper. [10] Motor ship. [11] Tug. [12] For orders.

Invincible	17	13 45	17	14 30	17	22 25	17	22 25	American	Amer.-Pioneer Line	440 0	56 0	27 0	Manila, P. I	Boston, Mass	(13)	9,880	8,329	6,157
Cathwood [1]	17	8 45	17	14 41	18	00 20	19	6 10	American	Union Oil Co. of Calif	435 0	56 0	29 6	Los Angeles, Calif	Cristobal, C. Z	Fuel oil	10,000	7,482	5,143
Santa Tecla	17	15 20	17	16 08	18	11 45	18	14 07	American	N. O. & S. A. S. S. Co	298 6	40 0	23 0	Tocopilla, Chile	New Orleans, La	Nitrates, ores	3,500	2,832	1,803
Corinthic	17	17 15	18	6 18	18	14 14	18	17 50	British	Shaw, Savill & Albion	500 3	63 6	24 0	Wellington, N. Z	London, England	Frozen, general	4,079	12,821	9,507
Abron	17	18 40	18	6 29	18	15 15	18	15 15	American	Redwood Line	386 8	52 2	24 9	San Francisco, Cal	Mobile, Ala	(17)	6,300	5,732	4,131
Gallic	17	23 02	18	7 09	18	14 50	19	13 10	British	White Star Line	450 0	58 6	27 9	Auckland, N. Z	Glasgow-Scotland	Frozen, general	3,458	8,278	5,304
Delaware Sun [1]	18	00 30	18	7 45	18	16 35	18	18 00	American	Sun Oil Co	480 5	66 0	28 4	Los Angeles, Calif	New York, N. Y	Gas oil	13,031	9,402	6,586
Oriole	18	3 40	18	8 21	18	16 55	18	16 55	American	Quaker Line	410 5	54 2	26 0	Portland, Oreg	Philadelphia, Pa	Lumber, wheat	7,000	6,755	4,873
Bessy [14]	17	1 00	18	8 21	18				Panaman	H. Elliot	47 0	15 0		El Real, R. P	Gatun Lake, C. Z	Ballast		19	10
Breda	18	5 00	18	8 36	18	17 35	18	19 00	Dutch	Royal Neth. S. S. Co	402 6	58 3	27 0	Valparaiso, Chile	Hamburg, Germany	General	8,406	7,384	4,769
Camden [1]	18	5 46	18	9 08	18	17 55	18	21 10	American	United Fruit Co	419 5	56 6	26 0	Los Angeles, Calif	Port Limon, C. R	Fuel oil	9,078	6,977	4,959
Leda [10]	18	6 00	18	9 37	18	18 45	18	18 45	Danzig	Standard Shipping Co	489 0	63 0	26 9	Talara, Peru	Halifax, N. S	Crude oil	11,365	9,346	6,063
Esparta	18	8 45	18	9 57	18	19 25	19	20 50	American	United Fruit Co	330 6	44 6	17 0	San Francisco, Cal	Port Limon, C. R	General	697	3,673	2,367
Tashmoo	13	3 05	18	10 22	18	19 20	18	20 20	American	Charles Nelson & Co	324 0	46 2	24 6	Seattle, Wash	Baltimore, Md	Lumber, general	4,250	3,984	2,628
Imlay [1]	18	13 40	18	14 42	18	22 20	18	22 20	American	C. D. Mallory & Co	425 8	57 0	29 6	La Libertad, Ecd'r	Philadelphia, Pa	Crude oil	13,000	7,218	5,025
Impero	18	19 50	19	6 56	19	14 25	19	15 55	Italian	Soc. Anonima Com	442 1	52 7	26 6	Iquique, Chile	Europe	Nitrates	7,850	7,004	4,849
Almagro	19	8 50	19	9 50	19	17 12	20	17 00	British	Pacific Steam Nav. Co	303 0	43 0	14 0	Callao, Peru	New York, N. Y	General	722	2,628	1,770
Birmingham City	19	11 00	19	11 40	19	18 55	20	00 10	American	Isthmian S. S. Lines	395 5	55 0	27 3	Vancouver, B. C	Avonmouth, Eng	General	7,929	7,304	5,188
S-16 [15]			20	6 13	20	13 10			American	U. S. Navy	231 0	20 0		Balboa, C. Z	Cristobal, C. Z				
Point Bonita	20	3 00	20	7 15	20	15 35	20	15 35	American	Swayne & Hoyt	324 0	46 2	21 0	Portland, Oreg	New Orleans, La	General	3,500	3,984	2,617
Gen. Wm. M. Graham [16]			20	7 24	20	15 30			American	U. S. Army	162 0	30 2		Balboa, C. Z	Cristobal, C. Z				
Riverton	20	6 30	20	8 02	20	16 35	20	16 45	British	R. Chapman & Son	409 0	54 0	26 2	Portland, Oreg	Queenstown, Ire	Wheat	8,107		
Chilcop	20	7 15	20	8 40	20	18 10	20	20 35	American	Chile S. S. Corp	411 5	54 0	24 6	Tocopilla, Chile	Savannah, Ga	Nitrates	8,099	6,609	4,973
Floreana [14]	20	11 50	20	12 54	20	22 30			Colombian	Colombian Transp. Co	150 0	27 2	8 0	Buenaventura, Col	Cristobal, C. Z	General	199	410	307
Pennmar	20	12 40	20	13 20	20	21 10	20	21 10	American	Calmar S. S. Corp	385 0	51 2	24 0	Seattle, Wash	New York, N. Y	Lumber	5,471	6,224	4,465
Belgium Maru	20	14 50	20	15 41	20	23 30	21	3 10	Japanese	Kokusai Kisen Kaisha	385 0	51 0	26 6	Portland, Oreg	Queenstown, Ire	Wheat	7,852	6,219	4,511
Willesden	20	16 00	20	17 01	21	11 35	21	11 35	British	Britain S. S. Co., Ltd	400 0	52 3	27 9	Tocopilla, Chile	Alexandria, Egypt	Nitrates	7,311	6,363	4,669
C. O. Stillman [1] [10]	20	16 35	20	17 18	21	13 00	21	13 00	British	Inter. Petroleum, Ltd	565 7	75 6	34 7	Talara, Peru	New York, N. Y	Crude oil	21,115	16,780	9,885

[1] Tanker. [13] Sugar, coconut oil, copra, pineapples, and fuel oil. [14] Motor schooner. [15] Submarine. [16] Mine planter. [17] Lumber and canned goods.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 14	Calamares	United Fruit Co	Port Limon, Costa Rica.	October 14	Anachucuna [21]	United Fruit Co	Colon, R. P.
October 14	El Atrato [18]	The Atrato Co	Cartagena, Colombia.	October 14	Bowden	United Fruit Co	Mobile, Ala.
October 15	Pastores	United Fruit Co	New York via Habana.	October 14	Calamares	United Fruit Co	New York via Habana.
October 16	Perou	French Line	St. Nazaire via wayports.	October 14	Maravi	United Fruit Co	New York via Kingston.
October 16	U. S. S. Cleveland	U. S. Navy	Bluefields, Nicaragua.	October 15	Cartago	United Fruit Co	New Orleans and wayports.
October 16	Linda S. [19]	Surgeon Brothers	Colon, R. P.	October 15	Ancon	Panama R. R. S. S. Line	New York via Haiti.
October 17	Granada	Standard Fruit S. S. Co	New Orleans, La.	October 16	Linda S. [19]	Surgeon Brothers	Bluefields, Nicaragua.
October 17	Sixaola	United Fruit Co	New York via Kingston.	October 17	Endurance [20]	D. L. Lynton	San Andres, Colombia.
October 17	Saramacca	United Fruit Co	New Orleans, La.	October 17	Perou	French Line	St. Nazaire and wayports.

[18] Motor ship. [19] Motor schooner. [20] Schooner. [21] Motor boat. * Other than ships passing through the Canal.

(Continued on page 180.)

Cargo Through Canal During September, 1928.

On pages 176 and 177 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in September, 1928. This cargo, segregated according to direction, as compared with September, 1927, and the differences, are shown in the following tabulation:

	September, 1928.	September, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Atlantic to Pacific	709,654	594,949	+114,705
Pacific to Atlantic	1,603,357	1,802,804	−199,447
Totals	2,313,011	2,397,753	−84,742

As will be noted above, tonnage from the Atlantic to the Pacific increased 114,705 tons over that in September, 1927. This was due primarily to the increased shipments of manufactured iron and steel, automobiles, railroad material, and metals.

The decreased tonnage from the Pacific to the Atlantic continues from the depressed condition of mineral oil traffic, although there were also rather heavy decreases in wheat and lumber. These shipments began to decline in the early part of the current calendar year owing to activities in regions on the Atlantic coast. The reduction in Atlantic-bound mineral oil cargo for the first nine months of the current calendar year as compared with the first nine months of the calendar year 1927 has averaged almost 200,000 tons per month. The movement of wheat through the Canal during September, 1928, fell below the tonnage of this commodity passing through in September last year to the extent of some 70,000 tons. A recent shipping publication states that the inactivity in grain is attributed to disparity in prices between America and Europe, that the world's wheat crop seems to be one of the largest in history, and foreign buyers are holding off for lower prices.

Lumber also showed a decrease under September of last year in the amount of 68,000 tons.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Over 67 per cent of the cargo moving from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States and 24.8 per cent in Europe. Cargo originating in the United States was 128,500 tons, or almost 37 per cent, greater than the amount coming from that area in September, 1927. The total amount coming from the United States also showed a relative increase, the amount coming from that area in September last year representing 58 per cent of the total. Cargo from Europe showed a relative as well as a small actual decrease under that of September, 1927, the actual decrease amounting to about 10,000 tons.

Destination.—Almost 45 per cent of the Pacific-bound cargo was destined to the United States; 20.7 per cent to Asia (including the Philippines); 16.6 per cent to Australasia; and 12.3 per cent to South America. Cargo tonnage to the United States, Asia, and Australasia, showed relative as well as actual increases over the corresponding month a year ago, the actual increases to these areas amounting to 67,175 tons, or 26.6 per cent; 44,410 tons, or 43.3 per cent, and 23,105 tons, or 24.4 per cent, respectively. Cargo to South America was relatively lower than in September, 1927, although the actual tonnage was about the same.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 60.2 per cent originated on the west coast of the United States; 27.9 per cent in South America; 5.6 per cent in Canada; 3.0 per cent in Australasia; and 2.9 per cent in Asia. Cargo from the United States showed a decrease under September, 1927, of 294,195 tons, or 23.4 per cent. The percentage of the total from the United States in September last year was 69.7 per cent as compared with 60.2 per cent of the total in September this year. Cargo tonnage from South America, Canada, Australasia, and Asia, showed relative as well as actual increases over September, 1927, the actual increases amounted to 56,509 tons, or 14.5 per cent; 15,914 tons, or 21.3 per cent; 10,121 tons, or 27 per cent, and 23,870 tons, or 106 per cent, respectively. Decrease in shipments of mineral oils, wheat, and lumber, contributed largely to the heavy loss in tonnage from the United States.

Destination.—Segregated according to destination, 53 per cent of the cargo in this direction went to the United States, and 37 per cent to Europe. Tonnage to the United States decreased 212,048 tons, or 20 per cent, as well as a relative decrease in its proportion of all cargo from the Pacific, as compared with September last year, while that to Europe increased 47,575 tons, or 8.7 per cent, under September, 1927, together with a rather heavy relative increase in proportion of all cargo. The heavy decrease of cargo tonnage to the United States was due to light mineral oil shipments to that area.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify almost 85 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 15 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic-to-Pacific-bound commodities which aggregated more than 10,000 tons for September, 1928, or September, 1927, are listed in the following tabulation, showing differences:

Commodity.	September, 1928.	September, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Automobiles	24,303	10,987	+13,316
Cement	12,798	22,347	−9,549
Coal and coke	27,527	18,238	+9,289
Cotton	19,026	11,817	+7,209
Creosote	9,040	17,250	−8,210
Manufactured goods:			
Iron and steel	191,900	112,026	+79,874
Machinery	13,823	14,529	−706
Railroad material	44,924	5,894	+39,030
Tinplate	14,454	8,652	+5,802
Textiles	13,066	7,144	+5,922
Miscellaneous	10,436	2,378	+8,058
Metals, various	18,031	4,357	+13,674
Oils, mineral	39,148	68,631	−29,483
Paper	12,904	14,008	−1,104
Phosphates	9,206	12,451	−3,245
Sulphur	15,613	10,275	+5,338
Tobacco	12,521	4,383	+8,138

The above 17 commodity groups comprise approximately 68 per cent of the cargo moving from the Atlantic to the Pacific during September, 1928. It will be noted that 11 of these items show increases and 6 decreases. The heaviest increases were in iron and steel, while mineral oils showed the heaviest decrease.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify almost 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of September, 1928. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	September, 1928.	September, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Barley	23,205	30,502	−7,297
Beans	10,128	5,581	+4,547
Canned goods (fish, fruit, vegetables, etc.)	87,610	79,051	+8,559
Cold storage (food products) [1]	22,178	13,649	+8,529
Fruit, dried	27,383	17,057	+10,326
Lumber	263,609	331,208	−67,599
Metals, various	51,664	45,883	+5,781
Oils, mineral	455,509	663,410	−207,901
Ores (principally iron)	148,441	121,225	+27,216
Rice	15,298	4,130	+11,168
Sugar	49,391	24,476	+24,915
Wheat	137,592	207,226	−69,634

[1] Does not include fresh fruit.

The above 12 commodity groups comprise over 89 per cent of the cargo moving from the Pacific to the Atlantic during September, 1928. Eight of the items show increases and 4 decreases. The heaviest increase was in sugar, which showed a gain of 24,915 tons over September, 1927. Mineral oils, wheat, and lumber decreased heavily.

(**Continued on page 176.**)

Cruise of the "Carnegie."

The yacht *Carnegie*, which is owned by the Department of Terrestrial Magnetism of the Carnegie Institution of Washington, D. C., and engaged in a magnetic survey of the oceans, transited the Canal from the Atlantic on October 11, 1928, and is scheduled to sail from Balboa on October 25. She sailed from Washington on May 1, 1928, and visited England, Germany, Iceland, and the West Indies before reaching the Canal.

The purpose of the present cruise of the *Carnegie* is to find out what changes have taken place in the magnetic elements over the various ocean areas since the six previous cruises of the vessel made from 1909 to 1921. This information bears on unsolved problems and is to supply the values needed to keep up to date the navigation charts used by navigators of the air as well as of the sea. Among the unsolved problems are the origin of the earth's magnetic field, the causes of the daily and seasonal changes in this field, the close relation between magnetic storms and the occurrence of polar lights and changes in the condition of the sun, and why there are 11-year periods in magnetic changes coincident with the 11-year periods in sunspot activity. To obtain the maximum of data regarding these changes, it has been planned to retrace to a large extent the tracks of former cruises. The second important investigation will consist of a continuation of the study of the earth's electric field. The importance of investigations such as this has increased in recent years because of the variations in atmospheric electricity and variations in magnetic conditions. New theories regarding the nature of electricity and the constitution of matter and rapid advances made in radio transmission have emphasized the need of observations.

The northern winter months are to be spent in the South Pacific, the yacht visiting the Society Islands, Easter Island, and Peru, and going north to Japan and California next summer; and so on around the world, following the sun in order to avoid storms and delays due to wintry weather and to improve the conditions for investigations. Among the places to be visited after California are Honolulu, Samoa, New Zealand, Cape Horn, South Georgia, South Africa, Ceylon, India, Western Australia; across the South Pacific again and around the Horn to Buenos Aires, Argentina, St. Helena, Azores, Maderia, and back to Washington in September, 1931.

In her previous six voyages on magnetic surveys the *Carnegie* covered over 290,000 miles. The vessel made three prior transits of the Canal, in 1915, 1918, and 1921. During the period intervening between 1921 and the beginning of her present cruise she was out of commission. Accounts of the work of the *Carnegie* appeared in THE PANAMA CANAL RECORD of April 14, 1915, and October 12, 1921, at the time of two of her previous transits of the Canal.

The yacht is 135.6 feet long, 32.2 feet beam, and of 324 gross tons. Capt. J. P. Ault, the commander and chief of the scientific staff, has been in command of the *Carnegie* on three previous cruises, each of the two latter lasting two years. On her present cruise four American youths of the Canal Zone signed on from Balboa as members of the crew.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *October 22, 1928.*

No. 470.

The following appeared in Notice to Mariners, Washington, D. C., October 13:

Colombia, Puerto Colombia. Lafayette Rock gas buoy reestablished. The master of the Norwegian motor ship *Knute Nelson* reports that Lafayette Rock gas buoy has been reestablished 482 yards 273° from the pier head. Approximate position: 11° 00′ 15″ N., 74° 59′ 20″ W.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending October 21, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Albingia	Hamburg-American Line		October 15	17	
Boskoop	Dutch Line	October 14	October 14	200	
Havre Maru	Nippon Yusen Kaisha	October 14	October 15	63	
U. S. S. Sapelo	U. S. Navy	October 14	October 15	1	
Venezuela	Panama Mail S. S. Co.	October 15	October 16	405	28
Shabonee	Standard Transportation Co	October 15	October 17	6,830	
Chateau Thierry	U. S. Army	October 15	October 16		
City of Panama	Panama Mail S. S. Co	October 15	October 15	46	
Legazpi	Spanish Line	October 15	October 15	145	
Manizales	Hamburg-American Line	October 16	October 16	50	
Cathwood	Union Oil Co	October 17	October 17	170	
A. B. de O'Barrio	Pacific Fruit Co	October 17	October 17	25	
Bessie	Pacific Fruit Co	October 17	October 18	14	
Colombia	Panama Mail S. S. Co	October 17	October 18	55	
H. M. Storey	Standard Oil Co. of California	October 18	October 19	14,720	
President Harrison	Dollar Line	October 19	October 19	10	3
George Washington	Fred Olsen & Co	October 20	October 20	1,196	
Albert Vogler	Hamburg-American Line	October 21	October 21		
Dos Hermanos	A. Valdez	October 17	October 17	43	

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, September, 1928.—Continued from page 174.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. [1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America. [1]	Balboa, C. Z. [2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East. [1]	Total, Asia.	Australia.	New Zealand.	Australasia. [1]	Total, Australasia.		
North America:																								
United States—																								
North Atlantic ports	11,397	2,312	169	4,297	9,918	28,093	208,017	1,259	7,798	....	2	5,515	222,591	30,371	25,564	10,001	19,400	85,336	26,215	2,673	100	28,988	365,008	51.5
South Atlantic ports	....	....	....	....	....	....	727	2,375	....	....	....	....	3,102	1,958	....	....	....	1,958	....	....	....	....	5,060	0.7
Gulf ports	1,697	164	204	436	734	3,235	34,208	1,000	....	....	....	552	35,760	48,249	1,740	2,536	....	52,525	....	....	15,323	15,323	106,843	15.0
Totals, U. S.	13,094	2,476	373	4,733	10,652	31,328	242,952	4,634	7,798	....	2	6,067	261,453	80,578	27,304	12,537	19,400	139,819	26,215	2,673	15,423	44,311	476,911	67.2
Cristobal, C. Z. [2]	669	2,260	1,954	642	116	5,641	4,239	....	4,489	....	....	....	8,728	23	....	....	....	23	....	....	....	....	14,392	2.0
East coast of Canada	....	....	....	....	....	....	....	2,193	....	....	....	....	2,193	307	....	....	2,580	2,887	7,964	7,395	....	15,359	20,439	2.9
West Indies	....	....	....	....	....	....	4,020	....	....	....	....	....	4,020	....	....	....	....	....	....	....	....	....	4,020	0.6
E. coast of Mexico and Central America	....	....	....	....	....	....	2,798	....	....	....	....	....	2,798	3,323	....	....	....	3,323	6,001	....	....	6,001	12,122	1.7
Totals, N. America	13,763	4,736	2,327	5,375	10,768	36,969	254,009	6,827	12,287	....	2	6,067	279,192	84,231	27,304	12,537	21,980	146,052	40,180	10,068	15,423	65,671	527,884	74.4
Europe:																								
British Isles	13,993	80	258	3,760	7,970	26,061	6,675	5,070	....	....	....	....	11,745	....	....	....	....	....	....	46,277	5,513	51,790	89,596	12.6
Belgium	2,497	47	503	681	1,281	5,009	30,406	1,698	....	....	190	....	32,294	....	....	....	....	....	....	....	....	....	37,303	5.3
Denmark	....	....	....	....	....	....	16	17	....	....	....	....	33	....	....	....	....	....	....	....	....	....	33	....
France	....	....	51	57	87	195	2,268	1,160	....	....	....	....	3,428	....	....	....	....	....	....	....	....	....	3,623	0.5
Germany	2,298	1,027	460	1,822	1,610	7,217	3,905	19	....	....	825	....	4,749	....	....	....	....	....	....	....	....	....	11,966	1.7
Holland	1,011	165	93	904	....	2,173	11,030	1,048	....	....	....	....	12,078	....	....	....	....	....	....	....	....	....	14,251	2.0
Italy	12	....	....	14	703	729	651	116	47	....	....	....	814	....	....	....	....	....	....	....	....	....	1,543	0.2
Norway and Sweden	....	....	....	....	....	....	2,254	376	1,967	....	1,454	....	6,051	....	....	....	....	....	....	....	....	....	6,051	0.9
Spain and Portugal	146	....	....	83	821	1,050	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1,050	0.1
Europe [1]	315	5	27	37	5,503	5,887	4,498	....	....	....	....	....	4,498	....	....	....	....	....	....	....	....	....	10,385	1.5
Totals, Europe	20,272	1,324	1,392	7,358	17,975	48,321	61,703	9,504	2,014	....	2,469	....	75,690	....	....	....	....	....	....	46,277	5,513	51,790	175,801	24.8
E. coast of S. America	....	1,733	....	....	....	1,733	3,369	3	....	....	....	....	3,372	864	....	....	....	864	....	....	....	....	5,969	0.8
Grand totals	34,035	7,793	3,719	12,733	28,743	87,023	319,081	16,344	14,301	....	2,471	6,067	358,254	85,095	27,304	12,537	21,980	146,916	40,180	56,345	20,936	117,461	709,654	....
Per cent of total cargo:																								
September, 1928	4.8	0.1	0.6	1.8	4.0	12.3	44.9	2.3	2.0	....	0.3	0.9	50.4	12.0	3.8	1.8	3.1	20.7	5.7	7.9	3.0	16.6	....	100.0
September, 1927	5.7	1.1	0.5	2.8	4.8	14.9	42.3	3.3	3.0	1.5	1.6	0.4	52.1	8.3	7.1	1.4	0.3	17.1	6.5	9.4	....	15.9	....	100.0
September, 1926	1.4	0.4	....	0.7	10.1	12.6	41.2	5.1	1.5	3.1	....	....	50.9	2.2	8.5	0.4	7.6	18.7	8.7	8.0	1.1	17.8	....	100.0

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, September, 1928.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.															Per cent of total cargo.
	United States.																								
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	East coast of Central America.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.[1]	Total, Europe.	East coast of South America.	Egypt.	South Africa.	Grand totals.	
South America:																									
Chile	152,439	6,000	7,194	165,633	10,450	556	.....	14	176,653	15,814	528	.....	7,076	9,437	1,503	105,17	.....	3,350	71,568	119,793	40	18,423	.....	314,909	19 7
Colombia	120	.....	.....	120	.....	.....	.....	2,021	2,141	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,141	0 1
Ecuador	6,990	.....	.....	6,990	.....	.....	.....	2,784	9,774	26	.....	.....	228	.....	.....	350	.....	436	110	1,150	16	.....	.....	10,940	0 7
Peru	4,544	4,100	.....	8,644	48,137	.....	.....	4,343	61,124	21,583	3,200	.....	25	845	316	16	9,423	.....	12,045	47,453	8,537	.....	.....	117,114	7 3
W. coast S. Amer..[1]	.....	.....	.....	.....	.....	.....	.....	296	296	115	.....	.....	75	.....	.....	122	.....	.....	717	1,029	.....	.....	.....	1,325	0 1
Totals, S. America.	164,093	10,100	7,194	181,387	58,587	556	.....	9,458	249,988	37,538	3,728	.....	7,404	10,282	1,819	11,005	9,423	3,786	84,440	169,425	8,593	18,423	.....	446,429	27 9
North America:																									
West coast Canada	14,661	.....	.....	14,661	15,416	1,831	.....	13	31,921	26,509	3,301	47	1,074	3,698	13,847	.....	.....	.....	5,989	54,465	399	.....	3,730	90,515	5 6
W. coast Cen. Amer.	2,006	.....	.....	2,006	.....	3	310	1,401	3,720	.....	.....	.....	.....	100	.....	.....	.....	2,732	319	3,151	.....	.....	.....	6,871	0 4
W. coast of U. S.	559,250	13,637	30,959	603,846	.....	9,087	3,246	12,968	629,147	195,553	686	1,431	13,271	18,698	11,082	8,518	2,022	.....	77,988	329,249	533	.....	3,620	962,549	60 2
Hawaii	2,448	.....	476	2,924	.....	.....	.....	.....	2,924	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,924	0 2
Balboa	195	.....	.....	195	.....	.....	.....	.....	195	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	195	.....
Totals, N. Amer.	578,560	13,637	31,435	623,632	15,416	10,921	3,556	14,382	667,907	222,062	3,987	1,478	14,345	22,496	24,929	8,518	2,022	2,732	84,296	386,865	932	.....	7,350	1,063,054	66 4
Asia:																									
China	4,284	.....	.....	4,284	.....	5,210	.....	364	9,858	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,858	0 6
Japan	1,779	.....	.....	1,779	.....	.....	.....	.....	1,779	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,779	0 1
Philippines	11,287	.....	9,636	20,923	.....	.....	.....	.....	20,923	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20,923	1 3
Far East[1]	2,758	.....	.....	2,758	.....	7,350	.....	.....	10,108	3,584	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,584	.....	.....	.....	13,692	0 9
Totals, Asia	20,108	.....	9,636	29,744	.....	12,560	.....	364	42,668	3,584	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,584	.....	.....	.....	46,252	2 9
Australasia:																									
Australia	1,709	.....	.....	1,709	567	.....	.....	.....	2,276	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,276	0 1
New Zealand	6,900	.....	.....	6,900	.....	.....	.....	85	6,985	20,864	.....	.....	.....	.....	.....	.....	.....	.....	.....	20,864	.....	.....	.....	27,849	1 8
Australasia[1]	6,110	.....	.....	6,110	.....	.....	.....	.....	6,110	.....	.....	.....	3,187	.....	.....	.....	8,200	.....	.....	11,387	.....	.....	.....	17,497	1 1
Totals, Austral'ia.	14,719	.....	.....	14,719	567	.....	.....	85	15,371	20,864	.....	.....	3,187	.....	.....	.....	8,200	.....	.....	32,251	.....	.....	.....	47,622	3 0
Grand totals	777,480	23,737	48,265	849,482	74,570	24,037	3,556	24,289	975,934	284,048	7,715	1,478	24,936	32,778	26,748	19,523	19,645	6,518	168,736	592,125	9,525	18,423	7,350	1,603,357	.....
Per cent of total cargo:																									
September, 1928	48 5	1 5	3 0	53 0	4 6	1 5	0 2	1 5	60 8	17 7	0 5	0 1	1 6	2 0	1 7	1 2	1 2	0 4	10 6	37 0	0 6	1 1	0 5	.....	100 0
September, 1927	52 6	3 7	2 5	58 8	1 4	1 0	0 7	5 6	67 5	12 3	1 9	.....	0 2	2 7	1 7	0 9	0 4	0 1	10 0	30 2	1 6	0 7	.....	.....	100 0
September, 1926	58 0	1 0	2 7	61 7	6 8	0 8	0 1	3 2	72 6	13 3	0 3	.....	0 3	2 1	0 3	0 6	0 5	0 2	9 2	26 8	0 1	0 5	.....	.....	100 0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending October 13, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Toloa	United Fruit Co	October 7	October 7	8	490
Agwidale	Mallory S. S. Line		October 7		490
Cerigo	Hamburg-American Line		October 7		338
Alvarado	Pacific Steam Navigation Co		October 7		5
Arkansas	French Line	October 7	October 7	39	40
Saale	North German Lloyd	October 7	October 8	(1)	325
Heredia	United Fruit Co		October 8		207
Guayaquil	Panama Railroad S. S. Line	October 7	October 8	439	4
Coppename	United Fruit Co	October 7	October 8	(1)	323
Calamares	United Fruit Co	October 8	October 10	1,150	30
Galicia	Hamburg-American Line	October 9	October 9	7	275
Corinto	Panama Mail S. S. Line	October 9		890	
Pacific Grove	Furness, Withy & Co		October 9		49
Balboa	Johnson S. S. Line	October 9	October 9	(1)	139
Mayari	United Fruit Co	October 9	October 9	15	692
Calcutta Maru	Nippon Yusen Kaisha	October 9	October 9	316	(2)
Loreto	Pacific Steam Navigation Co	October 10	October 10	(1)	72½
Acajutla	Pacific Steam Navigation Co	October 10		183	
Uribe	Estrada G. Hermanos	October 10		525	
Simon Bolivar	Royal Netherlands S. S. Co	October 10	October 10	20	(2)
Planet	Hamburg-American Line	October 10	October 10	45	(3)
Waunta	Standard Fruit S. S. Co	October 10	October 11	(1)	2
Stella	Panama Mail S. S. Co	October 10		357	
Tivives	United Fruit Co	October 10	October 11	354	393
Ancon	Panama Railroad S. S. Line	October 10		4,359	
Garfield	N. O. & S. A. S. S. Co	October 11	October 12	82	209
Buenaventura	Panama Railroad S. S. Line	October 11	October 12	587	391
San Mateo	United Fruit Co	October 11	October 12	537	124
Wido	North German Lloyd	October 11	October 12	120	50
Kyphissia	Hamburg-American Line	October 11	October 12	127	(2)
Chiman	Isthmian Land & Fruit Co	October 11	October 13	(1)	317
Ebro	Pacific Steam Navigation Co	October 11	October 12	3	(2)
William M.	R. Feuillebois	October 12	October 12	(1)	26
Dinteldijk	Holland-American Line	October 12	October 13	12	402
Cali	North German Lloyd		October 12		359
Simon Bolivar	Royal Netherlands S. S. Co	October 12	October 13	50	521
Gatun	Standard Fruit Co	October 12	October 13	320	683
Buenos Aires	Spanish Line	October 12	October 13	229	(2)
Paraguay	Hamburg-American Line	October 12		811	
Oroya	Pacific Steam Navigation Co	October 13	October 13	(2)	14½
Mantaro	Peruvian Line	October 13		2,002	
Maravi	United Fruit Co	October 13		22	
Durazzo	Hamburg-American Line	October 13		532	
Bowden	United Fruit Co	October 13	October 13	(2)	540
Waunta	Standard Fruit S. S. Co	October 13	October 13	135	(2)
Boskoop	Royal Netherlands S. S. Co	October 13		246	
Santa Cruz	Grace Line	October 13		26	
Cartago	United Fruit Co	October 13		550	
Suriname	United Fruit Co	October 13	October 13	519	38

[1] No cargo discharged. [2] No cargo laded. [3] One case.

Sailings of Panama Railroad Steamship Line.

Following are proposed dates of sailings for 1928, of passenger vessels in the New York–Cristobal service of the Panama Railroad Steamship Line, in which the passenger steamers *Ancon* and *Cristobal* are engaged, sailing alternately:

Steamer.	Leave New York 3 p. m.	Leave Port-au-Prince p. m.	Arrive Cristobal a. m.	Leave Cristobal 3 p. m.	Leave Port-au-Prince p. m.	Arrive New York a. m.
Cristobal	October 16	October 21	October 24	October 28	October 31	November 5.
Ancon	October 30	November 4	November 7	November 11	November 14	November 19.
Cristobal	November 13	November 18	November 21	November 25	November 28	December 3.
Ancon	November 27	December 2	December 5	December 9	December 12	December 17.
Cristobal	December 11	December 16	December 19	December 23	December 26	December 31.
Ancon	December 24	December 29	January 1	January 6	January 9	January 14.

Steamers sail at 3 p. m. from Pier 65, North River, foot of West 25th St., New York.

Both steamers call at Port-au-Prince, Haiti, which is approximately 5 days from New York and 60 hours from Cristobal. The stay of steamers at Port-au-Prince is of sufficient length of time to allow passengers to visit points of interest.

West coast freight service.—In addition, a regular freight service is maintained from New York, with occasional calls at Haiti and to Cristobal, Buenaventura and Ecuadorian ports. Particulars upon application to the Panama Railroad Co., 24 State Street, New York, or Balboa Heights, Canal Zone.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity ..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 171.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

Date.	Vessel.	Line.	From—
October 17.	Manaqui	United Fruit Co	New York via wayports.
October 17.	Endurance [20]	D. L. Lynton	Colon, R. P.
October 17.	Inapaquina [21]	United Fruit Co	Colon, R. P.
October 17.	Pearl Marie [19]	R. Feuillebois	Colon, R. P.
October 18.	Suriname	United Fruit Co	Port Limon, Costa Rica.
October 18.	Anachucuna [21]	United Fruit Co	Colon, R. P.
October 19.	Granada	Standard Fruit S. S. Co	San Blas, R. P.
October 19.	Anachucuna [21]	United Fruit Co	Colon, R. P.
October 19.	Inapaquina [21]	United Fruit Co	Colon, R. P.
October 19.	Ville Riestra [21]	Costa Rican Government	Colon, R. P.
October 20.	Parismina	United Fruit Co	New Orleans via Habana.
October 20.	Kiel	Hamburg-American Line	Tampico, Mexico.

* DEPARTURES.

Date.	Vessel.	Line.	For—
October 17.	Pastores	United Fruit Co	Port Limon, Costa Rica.
October 17.	Inapaquina [21]	United Fruit Co	Colon, R. P.
October 18.	Anachucuna [21]	United Fruit Co	Colon, R. P.
October 18.	Granada	Standard Fruit S. S. Co	San Blas, R. P.
October 18.	Saramacca	United Fruit Co	Porto Colombia and Bocas.
October 18.	Sixaola	United Fruit Co	New York via wayports.
October 18.	Manaqui	United Fruit Co	Colombian ports.
October 18.	Suriname	United Fruit Co	New Orleans, La.
October 18.	U. S. S. Cleveland	U. S. Navy	Nicaraguan ports.
October 19.	Ancachucuna [21]	United Fruit Co	Colon, R. P.
October 19.	Inapaquina [21]	United Fruit Co	Colon, R. P.
October 19.	Granada	Standard Fruit S. S. Co	New Orleans and Puerto Cabezas.

[19] Motor schooner. [20] Schooner. [21] Motor boat.

PORT OF BALBOA.

October 14	Albingia	Hamburg-American Line	Champerico, Guatemala.
October 15	Shabonee	Standard Transportation Co	Los Angeles, Calif.
October 17	A. B. de O'barrio [22]	Pacific Fruit Co	Bayano River, R. P.
October 17	Dos Hermanos [23]	A. Valdez	Bayano River, R. P.
October 18	H. M. Storey	Standard Oil Co. of California	Los Angeles, Calif.
October 18	Craftsman [24]	R. J. McArdle Contracting Co	Buenaventura, Colombia.
October 18	David	National Navigation Co	Panama, R. P.

October 15	Albingia	Hamburg-American Line	Antofagasta, Chile
October 17	Shabonee	Standard Transportation Co	Los Angeles, Calif.
October 17	Dos Hermanos [23]	A. Valdez	Bayano River, R. P.
October 17	A. B. de O'barrio [22]	Pacific Fruit Co	Bayano River, R. P.
October 20	Craftsman [24]	R. J. McArdle Contracting Co	Buenaventura, Colombia.

[22] Motor schooner. [23] Motor schooner and barge. [24] Tug. * Other than ships passing through the Canal.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., October 31, 1928. No. 13.

Panama Mail Liners to Call at Puerto Armuelles, Panama.

The motor ships *City of Panama* and *City of San Francisco*, and the steamer *Corinto*, combination cargo and passenger vessels, operating between Cristobal and San Francisco, via wayports in Central America and Mexico, have added Puerto Armuelles, Province of Chiriqui, Panama, as a port of call. At present this section of Panama is virtually isolated from the rest of the Republic in that only at irregular intervals are there vessels available to and from Puerto Amuelles, Pedregal, and other Chiriqui ports. The vessels have sailings from Cristobal approximately every 22 days, and will make the run to Puerto Armuelles in about 26 hours, or about half the time it takes the small vessels now engaged in this trade. The *City of Panama*, which sailed from Cristobal on October 30, 1928, is to be the first of the two vessels to stop at this new port.

The three vessels are owned and operated by the Panama Mail Steamship Line and fly the Panaman flag. The "City" ships are 300 feet long, 46 feet beam, and of 3,150 deadweight tons, and the *Corinto* is slightly smaller.

New Hamburg-American Line Service.

The *Phoenicia*, a new vessel belonging to the Hamburg-American Line, transited the Canal from the Atlantic to the Pacific on her maiden voyage on October 21, 1928. She is 373 feet long, 53.7 feet beam, and of 4,124 gross tons. This is the first of four new 13-knot motor ships which the company is placing in service to secure quicker delivery of coffee from the west coast of Central America to Europe. The new service will bring coffee from Salvador to Amsterdam and Hamburg in about 21 days, and from Nicaragua in about 19 days. The new ships to follow the *Phoenicia* are the *Palatia*, *Phrygia*, and *Patricia*.

New Johnson Liner Transits Canal.

The *Margaret Johnson*, owned and operated by the Johnson Line, transited the Canal from the Atlantic to the Pacific on October 26, 1928, on her maiden voyage in the European-west coast North America trade of this line. She carried 43 passengers and 4,290 tons of cargo on her maiden trip.

A description of this vessel appeared in THE PANAMA CANAL RECORD of June 20, 1928.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, October 27, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Phoenicia [2]	19	21.45	21	6.07	21	13.30	21	14.55	German	Hamburg-American Line	373.9	53.0	20.3	Hamburg, Germany	Champerico, Guat.	General	4,239	5,425	3,508
Albert Vogler	19	23.35	21	6.08	21	14.25	22	3.00	German	Hamburg-American Line	424.0	55.0	21.4	Hamburg, Germany	Valparaiso, Chile	General	4,568	7,173	5,554
Rigi	20	23.25	21	7.15	22	13.00	22	14.10	Norwegian	Camillo Eitzen & Co	400.0	53.0	14.0	Rotterdam, Holland	Los Angeles, Calif.	Ballast		6,392	4,606
San Ugon [1]	21	6.15	21	7.15	21	15.06	21	20.00	British	Anglo-Mexican Pet. Co.	413.0	53.4	20.0	Falmouth, England	Los Angeles, Calif.	Ballast		5,976	4,069
Missourian [2]	20	22.55	21	8.15	21	15.57	21	17.15	American	Amer.-Hawaiian Line	445.0	59.8	20.7	Boston, Mass	Portland, Oreg.	General	3,616	8,567	6,020
Bosworth	21	2.15	21	9.27	21	17.44	21	19.07	British	H. M. Thompson	415.0	55.0	27.2	Port Arthur, Texas	Fremantle, Aust'lia.	(6)	7,700	6,778	4,837
Vacuum [1]	21	7.15	21	10.45	21	18.05	21	19.07	American	Vacuum Oil Co	425.0	57.0	22.6	Paulsboro, N. J.	San Francisco, Cal.	Ballast		7,473	5,034
Ipswich	21	8.40	21	12.05	21	19.55	22	00.15	American	Argonaut S. S. Co.	400.7	54.3	23.0	Baltimore, Md	Tacoma, Wash	General, steel	7,634	7,616	4,614
Benholm	21	11.15	21	13.20	21	20.25	21	21.30	British	Oriel S. S. Co.	407.0	53.0	18.0	New York, N. Y.	Dunedin, N. Z.	General	3,454	6,103	4,610
Manatawny [1]	21	14.35	21	14.55	21	21.55	22	4.35	American	Bernuth Lembcke Co	390.0	54.2	24.0	Middlesboro, Eng.	Seattle, Wash	Creosote	6,567	6,205	4,339
Eelbeck	21	19.35	22	6.07	22	13.49	22	15.10	American	Roosevelt S. S. Co., S. B.	401.0	54.6	23.4	New York, N. Y.	Brisbane, Australia	General, case oil	4,516	6,928	5,103
West Keats	22	1.05	22	6.20	22	13.56	22	15.10	American	Calif. & East'n S.S. Co.	410.5	54.3	19.0	Philadelphia, Pa	Seattle, Wash	General	3,800	6,572	4,900
Esparta	22	4.30	22	7.00	22	14.35	22	15.30	American	United Fruit Co.	330.6	44.0	18.0	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	790	3,673	2,367
Willhilo	22	5.00	22	7.00	22	14.51	22	15.50	American	Williams S. S. Line	434.3	57.7	23.0	Baltimore, Md	Seattle, Wash	Cobblings, gen	7,330	7,983	5,882
Chickasaw City	22	7.38	22	8.30	22	15.45	22	19.18	American	Isthmian S. S. Lines	395.5	55.0	26.6	Baltimore, Md	Vancouver, B. C.	General, steel	8,188	7,322	5,237
Cobetas	22	8.05	22	8.55	22	15.50	22	17.00	Spanish	Naviera Vascongoda	359.0	49.9	14.0	Las Palmas, Can. I	Chile	Ballast		4,460	3,090
Urbino	22	6.35	22	9.50	22	16.30	22	17.55	British	Ellerman Wilson Line	400.0	52.2	23.0	New York, N. Y.	Fremantle, Aust'lia.	General	3,474½	6,243	4,581
Manila Maru	22	13.35	22	13.45	22	20.30	22	21.48	Japanese	Osaka Shosen Kaisha	475.0	61.0	21.0	Buenos Aires, Arg.	Yokohama, Japan	(7)	3,514	10,075	7,292
William H. Doheny [1]	22	3.50	22	19.15	23	9.41	23	10.55	American	Huasteca Petroleum Co.	435.0	56.2	20.7	Baltimore, Md	Los Angeles, Calif.	Ballast		7,406	5,111
Caribbean			22		22	18.15			American	H. K. Smoot	298.0	47.0		Gatun Lake, C. Z.	Cristobal, C. Z.	Ballast		2,354	478
Svealand [2]	23	3.30	23	6.30	23	15.56	23	21.10	Swedish	Ore S. S. Corp.	561.0	72.0	20.0	Baltimore, Md	Cruz Grande, Chile	Ballast		15,425	4,421
Fernlane [2]	23	3.35	23	6.30	23	14.39	23	15.55	Norwegian	Fearnley and Eger	375.0	53.0	23.0	Galveston, Texas	Yokohama, Japan	General	4,675	6,264	4,681
Takaoka Maru	23	5.30	23	7.50	23	15.35	23	16.35	Japanese	Nippon Yusen Kaisha	445.0	58.0	22.11	Baltimore, Md	Kobe, Japan	(8)	6,454	7,989	5,856
Georgian	23	8.35	23	8.45	23	16.32	23	17.40	American	Amer.-Hawaiian Line	387.0	52.0	18.0	Baltimore, Md	Seattle, Wash	General	3,615	5,719	4,023
Tacoma [2]	23	16.55	23	17.25	24	9.15	24	10.45	Danish	Canadian Transp. Co.	380.0	53.0	16.0	New York, N. Y.	Vancouver, B. C.	Ballast		6,287	4,559
Lillian Luckenbach	23	19.15	23	20.15	24	11.25	24	13.30	American	Luckenbach Line	448.0	60.2	26.0	Boston, Mass	Seattle, Wash	General	5,600	9,294	6,865
Mariposa [3]			23		23	9.52			American	American Banana Corp.				Cristobal, C. Z	Gatun, C. Z	(9)		4	4
No. 21 [4]			23		23	9.52			American	American Banana Corp				Cristobal, C. Z.	Gatun, C. Z	Ballast		8	8
No. 22 [4]			23		23	9.52			American	American Banana Corp.				Cristobal, C. Z.	Gatun, C. Z.	Ballast		8	8
No. 23 [4]			23		23	9.52			American	American Banana Corp.				Cristobal, C. Z.	Gatun, C. Z.	Ballast		7	7
Inapaquina [5]	23	9.45	23	9.45	23	12.03			Panaman	United Fruit Co	105.0	15.0	5.0	Cristobal, C. Z.	Gatun, C. Z.	Ballast		89	54
Montanan	23	21.10	24	6.10	24	13.17	24	14.15	American	Amer.-Hawaiian Line	497.0	53.0	18.0	Boston, Mass	Tacoma, Wash	General	3,426	6,756	4,775
Lena Luckenbach	23	21.35	24	6.15	24	14.15	24	15.10	American	Luckenbach Line	425.0	53.8	23.0	New Orleans, La.	Seattle, Wash	General	4,528	7,217	5,295
Liberator	24	00.05	24	7.05	24	14.58	27	12.35	American	Tama Interocean Co.	410.0	56.0	26.11	New Orleans, La.	Cebu, Philippines	(10)	7,453	8,204	6,219
El Lobo [1]	24	5.20	24	7.30	24	15.16	24	16.40	British	Atlantic Refining Co.	385.2	51.0	19.0	Philadelphia, Pa.	La Libertad, Ecd'r.	Ballast		4,851	3,326
Justin	24	6.10	24	8.10	24	15.57	24	18.10	German	North German Lloyd	469.8	58.2	24.6	Hamburg, Germany	Portland, Oreg.	General	5,411	7,933	5,799

[1] Tanker. [2] Motor ship. [3] Launch. [4] Barge. [5] Motor boat. [6] Kerosene and petroleum products. [7] Cotton, lubricating oil, wax, quebracho, and bones.
[8] Cotton, tinplate, flour, and general. [9] Towing barges. [10] Cotton, case oil, and general.

Penelope [1] [2]	24	7.35	24	8.10	24	16.45	24	22.49	Danzig	Baltic-Amer. Pet. Co.	470.0	63	0	18.0	Hamburg,Germany	Talara, Peru	Ballast		9,302	6,127
Teno	23	21.52	24	9.25	24	16.23	24	17.25	Chilean	South American Line	421.8	56	0	26.0	New York, N. Y.	Valparaiso, Chile	General	2,571	7,764	4,672
Lobos [2]	23	21.18	24	13.15	24	19.55	25	1.07	British	Pacific Steam Nav. Co	405.0	54	2	22.3	Hull, England	Corral, Chile	General	5,236½	7,151	4,756
Sciota [11]			24	11.15	24	17.58			American	U. S. Navy	149.3	30	0		Cristobal, C. Z.	Balboa, C. Z.	(14)			
Taormina	24	4.50	25	6.25	25	13.10	25	14.10	Italian	Nav. Gen. Italiana	482.0	58	3	25.8	Genoa, Italy	Valparaiso, Chile	General	1,365	9,760	6,236
Pacific Fir	24	20.45	25	6.12	25	13.57	25	15.05	American	Dimon S. S. Corp	410.5	54	0	20.0	New York, N. Y.	Seattle, Wash	General	5,444	6,622	4,882
Amerikaland [2]	24	21.25	25	7.15	25	14.50	25	22.40	Swedish	Ore S. S. Corp	561.0	72	0	22.0	Baltimore, Md	Cruz Grande, Chile	Ballast		15,560	4,496
El Panquiaco [12]	25	7.10	25	7.10	25	15.39			Panaman	Panaman Government	125.0	23	0		Cristobal, C. Z.	Panama, R. P.	Ballast		288	101
Sally Maersk [2]	25	6.10	25	7.25	25	15.45	25	16.50	Danish	Isbrandtsen Moller Co	332.0	44	0	16.0	New York, N. Y.	Shanghai, China	General	2,135	3,518	2,510
Orduna	24	15.00	25	8.20	25	16.50	25	17.45	British	Pacific Steam Nav. Co	550.0	67	0	30.0	Liverpool, Eng.	Talcahuano, Chile	General	4,446	17,146	12,015
Texmar	25	1.10	25	8.20	25	17.14	25	19.12	American	Calmar S. S. Corp	410.5	54	3	24.10	Baltimore, Md	Seattle, Wash	Steel, general	8,100	6,567	4,909
Steel Ranger	25	13.45	25	13.55	25	20.30	26	2.00	American	Isthmian S. S. Lines	424.0	56	0	25.4	Mobile, Ala	Shanghai, China	(15)	8,301	7,611	5,450
Targis	24	14.20	25	14.45	25	21.25	26	14.50	German	North German Lloyd	429.0	55	0	20.10	Hamburg,Germany	San Antonio, Chile	General	4,945	7,533	5,413
Herman Frasch	25	20.20	26	6.15	26	14.55	26	16.05	American	Texas Gulf Sulphur Co	356.0	51	6	26.0	Galveston, Texas	Woodfibre, B. C.	Sulphur	6,300	5,349	2,950
Nyhaug [2]	26	1.20	26	6.30	26	14.58	26	19.32	Norwegian	Scand.-So. Pacific Co.	350.0	51	5	19.0	Gothenburg,Swed.	Buenaventura, Col.	General	6,040	4,788	3,347
Bessemer City	25	21.30	26	6.10	26	14.20	26	15.25	American	Isthmian S. S. Lines	424.0	56	0	25.10	Baltimore, Md	Surabaya, Java	General	7,698	7,611	5,450
Camden [1]	26	1.55	26	7.30	26	15.49	26	16.55	American	United Fruit Co	419.5	56	6	19.0	Port Limon, C. R.	Los Angeles, Calif.	Ballast		6,977	4,959
Valle Riestra [5]	26	8.05	26	8.05	26	14.16	26	16.55	Costa Rican	Costa Rican Governm't.	110.0	23	0		Cristobal, C. Z.	Puntarenas, C. R.	Ballast		84	39
Turicum [12]	26	6.03	26	10.45	26	17.15	26	22.05	Norwegian	Camillo Eitzen & Co	451 8	59	2	20.0	Amst'dam,Holland.	Los Angeles, Calif.	Ballast			
Mary Ellen O'Neil [12]	26	10.40	26	11.00	26	18.08	26	19.05	American	The Texas Co	509.7	70	3	21.0	Baltimore, Md.	Los Angeles, Calif.	Ballast		12,425	8,338
Durazzo	24	23.08	26	12.14	26	19.15	26	21.00	German	Hamburg-AmericanLine	227.0	34	7	13.0	Cristobal, C. Z.	Buenaventura, Col.	General	235	1,633	1,041
Margaret Johnson [2]	25	22.50	26	13.55	26	20.15	27	1.47	Swedish	Johnson Line	405.0	54	0	23.7	Gothenburg,Swed.	Vancouver, B. C.	General	4,312		
Lochkatrine [1]	25	00.40	26	15.13	26	21.30	26	22.33	British	Royal Mail S. P. Co.	485.4	62	3	22.3	Rotterdam,Holland	Vancouver, B. C.	General, bananas	2,389	10,802	7,595
Gaelicstar	26	22.05	27	6.20	27	14.13	28	1.35	British	Blue Star Line	406.0	53	3	17.0	Antwerp, Belgium	Vancouver, B. C.	Ballast		6,014	4,480
Albionstar	27	7.05	27	7.25	27	14.20	27	15.40	British	Blue Star Line	450.0	58	5	22.0	Newcastle-on-Tyne	Vancouver, B. C.	Ballast		8,317	5,531
S-14 [13]			27	6.20	27	13.40			American	U. S. Navy	231.0	21	10		Cristobal, C. Z.	Balboa, C. Z.				
S-17 [13]			27	6.20	27	13.40			American	U. S. Navy	231.0	21	10		Cristobal, C. Z.	Balboa, C. Z.				
Bretagne [2]	27	00.45	27	8.55	27	15.17	27	16.40	Danish	Danish French S. S. Co.	326.0	50	0	16.1	New York, N. Y.	Shanghai, China.	General	3,902		
Arracan	27	6.03	27	9.25	27	16.46	27	21.40	British	Com'lth & Dom. Line	425.0	54	0	21.6	Philadelphia, Pa.	Fremantle, Aust'lia	General	3,278	6,456	4,881
Santa Cecelia	26	20.35	27	11.05	27	17.34	27	20.38	American	Grace Line	408.0	55	2	20.7	New York, N. Y.	Valparaiso, Chile	General	2,516	6,672	4,905
Edwin Christenson	27	12.30	27	12.40	27	19.42	28	00.40	American	Arrow Line	410.0	54	2	17.10	Baltimore, Md.	Seattle, Wash	General	4,173	6,603	4,932
Lumen [1]	27	17.15	27	18.50	28	10.46	28	13.20	British	H. E. Moss & Co	420.0	54	0	24.0	Rio de Janeiro, Br	Los Angeles, Calif.	Ballast		6,645	4,843
Prionas	27	14.35	27	19.40	28	11.54	28	14.30	Greek	Kassos Steam Nav. Co.	361.0	47	0	15.0	Cardiff, England	Arica, Chile	Ballast			

[1] Tanker. [11] Tug. [12] Transport. [13] Submarine. [14] Towing barge *No. 2*. [15] Steel, cotton, iron, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Oregonian	21	3.00	21	6.45	21	14.25	21	14.25	American	Amer.-Hawaiian Line	404.6	53	9	28.0	Seattle, Wash	Boston, Mass	General	5,700	6,754	4,800
Jamaica	21	5.30	21	7.10	21	15.46			British	Pacific Steam Nav. Co.	220.0	34	0	11.9	Champerico, Guat.	Cristobal, C. Z.	Specie, general	250	1,187	622
Ivo Racic	21	8.45	21	9.30	21	17.30	21	17.30	Yugoslav	Atlantska Plovidba	350.4	49	1	23.0	Antofagasta, Chile.	Azores [16]	Nitrates	6,000	4,470	3,228
Archangelos	21	9.00	21	9.50	21	18.20	21	18.20	Greek	Livanos & Co	400.5	52	0	25.0	Junin, Chile	Azores [16]	Nitrates	8,445	5,724	4,292
Antonis G. Lemos	21	11.10	21	12.01	21	20.00	22	1.30	Greek	S. & P. A. Lemos	385.0	52	0	25.0	Antofagasta, Chile.	Azores [16]	Nitrates	7,440	5,505	3,984
Willkeno	21	6.00	21	12.09	21	20.15	21	20.15	American	Williams S. S. Line	415.0	55	7	29.6	San Francisco, Cal.	New York, N. Y.	Lumber, general	7,521	7,750	5,805
Izabran	21	11.40	21	12.28	21	21.15	21	23.05	Yugoslav	Atlantska Plovidba	378.2	53	3	23.0	Taltal, Chile	Alexandria, Egypt	Nitrate	7,156	5,217	3,954
Australien [2]	21	11.50	21	12.54	21	22.00	21	22.00	Danish	East Asiatic Co	410.0	55	0	28.3	Vancouver, B. C.	Copenhagen, Den.	Barley, general	9,218	7,031	5,338

[16] For orders.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Hope [17]	....	....	21	6.23	21	....	....	....	American	J. R. Powell	37.0	10.8	.....	Balboa, C. Z	Cristobal, C. Z	Ballast	.....	11	11
Oyleric [1]	21	19.50	22	6.07	22	14.15	22	19.30	British	Andrew Weir & Co	420.3	54.5	26.6	Los Angeles, Calif.	Manchester, Eng.	Gasoline	8,547	6,397	4,358
Sciota [18]	....	....	22	6.27	22	13.40	....	....	American	U. S. Navy	155.0	30.0	....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
Spinanger [1 19]	22	6.00	22	7.03	22	14.25	22	14.25	Norwegian	Westfal, Larsen & Co	441.6	57.4	27.0	Los Angeles, Calif.	London, England	Gasoline	9,859	7,616	5,268
El Aleto [1 19]	21	22.25	22	7.15	22	14.55	22	17.50	British	C. T. Bowring & Co	440.8	57.5	26.8	Talara, Peru	Halifax, N. S.	Crude oil	10,000	7,555	5,049
Grosholm [19]	22	00.30	22	7.47	22	15.45	22	16.00	Norwegian	W. B. Marcussen	257.2	40.2	21.6	Seattle, Wash	Havana, Cuba	Lumber	2,200	2,030	1,524
Santa Luisa	22	8.30	22	9.11	22	17.05	22	19.20	American	Grace Line	360.2	51.6	25.7	Talcahuano, Chile	New York, N. Y.	Nitrates, general	4,137	5,710	4,023
Normanstar	22	10.45	22	11.20	22	18.15	22	20.45	British	Blue Star Line	415.6	56.3	24.6	Portland, Oreg	Rio de Janeiro, Br	Fruits, general	3,558	7,517	5,457
Ellaston	22	17.00	22	17.34	23	10.50	23	10.50	British	Canadian Transp. Co	347.0	50.0	24.0	Vancouver, B. C.	Boston, Mass	Lumber, general	5,642	5,202	3,840
Bennekom	22	17.30	22	18.03	23	12.20	23	15.37	Dutch	Royal Neth. S. S. Co.	450.0	58.0	.....	Valparaiso, Chile	Hamburg, Germany	Nitrates, general	8,399	7,849	5,806
Marore	23	00.05	23	6.06	23	15.20	23	15.30	American	Ore S. S. Corp	550.3	72.2	35.0	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	15,551	4,297
San Eduardo [1]	22	19.35	23	6.59	23	15.45	23	15.45	British	Anglo-Mexican Pet. Co	420.0	54.5	26.6	San Francisco, Cal.	United Kingdom	Gasoline	8,221	6,390	4,382
Japan Arrow [1]	23	3.35	23	7.15	23	16.25	23	16.25	American	Standard Transp. Co	468.3	62.7	27.6	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,365	10,084	7,426
India Arrow [1]	23	5.20	23	8.10	23	16.55	23	16.55	American	Standard Oil Co. of Cal.	468.3	62.7	27.0	Los Angeles, Calif.	Providence, R. I.	Gasoline	11,256	10,084	7,426
Jane Christenson	23	00.22	23	8.42	23	17.30	23	17.30	American	Arrow Line	407.5	52.4	24.0	Portland, Oreg	New York, N. Y.	Lumber	6,400	6,615	4,966
Feltore	22	23.00	23	9.32	23	18.45	23	18.45	American	Ore S. S. Corp	449.1	57.2	30.6	Cruz Grande, Chile	Baltimore, Md	Iron ore	11,000	7,808	5,139
Pacific Hemlock	23	7.00	23	9.48	23	19.10	23	19.10	American	Dimon S. S. Corp	409.7	54.2	23.8	Seattle, Wash	New York, N. Y.	Lumber	8,185	6,630	4,878
Los Angeles [19]	23	8.10	23	10.00	23	17.45	24	00.15	German	Hamburg-American Line	432.3	59.4	27.0	Vancouver, B. C.	Hamburg, Germany	General	7,076	8,454	6,344
Lagarto [19] [*]	23	3.00	23	10.37	23	20.18	24	11.11	British	Pacific Steam Nav. Co.	385.1	52.0	25.4	Magellanes, Chile	Glasgow, Scotland	General	6,371	5,656	3,823
Mongolia	23	16.22	24	6.24	24	13.30	24	14.00	American	Panama-Pacific Line	600.0	65.3	32.6	San Francisco, Cal.	New York, N. Y.	General	9,250	17,041	11,426
Sirius [20]	23	10.20	24	6.46	24	14.55	25	6.15	American	U. S. Navy	401.0	54.0	18.9	Bremerton, Wash.	Boston, Mass	Navy cargo	2	.....	.....
Cauca [19]	23	22.00	24	7.00	24	17.07	28	7.20	Colombian	National Navigation Co.	107.2	22.9	10.8	Buenaventura, Col.	Cristobal, C. Z	Coffee, hides	259	238	163
Fishpool	24	00.20	24	8.02	24	17.15	24	22.25	British	Sir. R. Ropner & Co	379.0	56.0	23.0	Nanaimo, B. C.	New York, N. Y.	Lumber	6,999	5,487	4,122
El Oso [1]	24	8.15	24	9.04	24	18.35	25	5.15	British	C. T. Bowring & Co	440.5	57.5	26.6	San Francisco, Cal.	United Kingdom	Gasoline	9,009	7,478	5,040
Rapot	24	8.55	24	10.05	24	19.20	25	1.50	German	Roland Line	393.4	54.3	.....	Valparaiso, Chile	Hamburg, Germany	General	7,920	6,583	4,626
Andrea F. Luckenbach	24	9.15	24	10.24	24	20.13	24	20.20	American	Luckenbach Line	496.0	68.2	31.0	Portland, Oreg	Boston, Mass	Lumber, general	12,973	11,487	8,762
Sun [1 19]	24	9.20	24	11.12	24	21.35	24	21.35	American	Sun Oil Co	480.6	66.0	29.0	Los Angeles, Calif.	Chester, Pa	Gasoline	13,506	9,620	6,424
Orazio [19]	24	11.00	24	11.55	24	19.55	26	21.10	Italian	Nav. Gen. Italiana	505.9	61.8	25.6	Valparaiso, Chile	Genoa, Italy	General	4,422	12,977	9,372
Durazzo	24	14.35	24	15.25	24	23.08	16	12.14	German	Hamburg-American Line	227.5	34.4	14.0	Buenaventura, Col.	Cristobal, C. Z	Coffee	546	1,633	1,041
Atlantic Sun [1]	25	2.15	25	5.58	25	13.40	25	13.40	American	Sun Oil Co	429.3	59.2	26.0	Los Angeles, Calif.	Miami, Fla	Gasoline	9,220	7,568	5,283
Westmoor [19]	24	17.20	25	6.37	25	14.25	25	15.30	British	W. Runciman & Co	375.0	52.2	25.0	Portland, Oreg	Dublin, Ireland	Wheat	7,400	6,039	4,633
Benvannoch	24	20.15	25	6.54	25	15.15	25	18.10	British	W. Thomson & Co	400.0	52.0	28.0	Portland, Oreg	Birkenhead, Eng	Wheat	8,000	6,583	4,763
Baychimo	24	22.15	25	7.26	25	15.50	25	20.15	British	The Hudson Bay Co	229.2	36.0	14.0	Vancouver, B. C.	United Kingdom	Wheat	1,030	1,362	883
La Perla	25	2.55	25	7.31	25	15.45	26	19.15	American	United Fruit Co	325.2	48.1	19.6	San Francisco, Cal.	Port Limon, C. R.	Fruit, vegetables	408	4,033	2,261
New Britain	24	23.55	25	8.11	25	16.55	25	16.55	American	Calif & East'n S. S. Co	386.8	52.2	24.4	Port Townsend	Philadelphia, Pa	Lumber, general	6,434	5,684	4,082
Muniaires	24	23.30	25	8.45	25	18.00	25	18.45	American	Munson S. S. Line	385.0	53.1	24.6	Seattle, Wash	Baltimore, Md	Lumber, general	6,282	5,577	4,225
Rialto	25	00.20	25	9.00	25	18.42	25	23.30	Italian	Nav. Libera-Triestina	436.5	55.4	27.9	Vancouver, B. C.	Trieste, Italy	General	8,900	7,789	6,025

[1] Tanker. [17] Launch. [18] U. S. Navy tug. [19] Motor ship. [20] Auxiliary cargo ship.

Cissy	25	4.30	25	9.37	25	19.20	26	00.35	Norwegian	Isbrandtsen-Moller Co	289.5	44.2	18.7	Anacortes, Wash.	Tampico, Mexico	Lumber	2,600	2,937	2,080
Treworlas	25	9.12	25	10.05	25	20.35	25	22.30	British	Hain S. S. Co	400.4	53.1	26.6	Caleta Colosa, Chile	Azores [22]	Nitrates	7,950	6,146	4,460
Apure [1] [21]	20	13.12	25	10.27	25	19.35	25	19.35	Venezuelan	Venezuela Gulf Oil Co.	325.0	55.0	10.0	Balboa, C. Z.	Maracaibo, Venez.	Ballast			
Lemuel Burrows	25	10.00	25	10.53	25	20.35	25	20.35	American	Mystic S. S. Co	437.2	63.7	28.7	Aberdeen, Wash.	Boston, Mass.	Lumber	10,600	9,105	6,004
Eurana	25	10.25	25	11.54	25	22.00	26	2.15	American	Planet Line	400.0	56.2	27.6	Seattle, Wash.	Dublin, Ireland	([23])	8,131	7,381	5,595
Robin Hood	25	10.45	25	13.19	25	22.45	26	00.05	American	Seas Shipping Co	424.8	55.2	24.6	Tacoma, Wash.	Baltimore, Md.	Lumber, pulp	7,092	7,473	5,533
Kastalia	25	10.20	25	13.53	26	00.10	26	11.30	British	Donaldson Bros., Ltd.	384.9	52.0	22.0	Vancouver, B. C.	Liverpool, England	General	5,737	5,530	3,917
Oleander [1]	25	22.00	26	6.10	26	14.10	26	14.10	British	British Admiralty	430.0	54.0	18.0	Los Angeles, Calif.	Trinidad, B. W. I.	Ballast		7,426	5,095
Pacific Trader	26	00.30	26	6.52	26	15.30	26	15.30	American	Argonaut S. S. Co	400.0	56.2	25.0	Englewood, B. C.	Philadelphia, Pa.	Lumber	7,650	6,517	4,723
Orcoma	26	1.30	26	7.40	26	17.00	27	1.30	British	Pacific Steam Nav. Co.	511.6	62.0	27.0	Talcahuano, Chile	Liverpool, England	([24])	6,400	12,417	8,305
Sacramento	26	10.25	26	11.38	26	18.45	26	18.45	American	Nelson S. S. Line	380.0	53.0	23.6	Port Angeles, Wash.	New York, N. Y.	Lumber, general	3,125	5,653	4,122
Texan	26	13.03	26	13.45	26	20.55	26	20.55	American	Amer.-Hawaiian Line	471.0	57.2	30.0	Portland, Oreg.	Boston, Mass.	General	10,070	9,154	6,966
Bethore	26	19.30	27	4.49	27	15.30	27	15.30	American	Ore S. S. Corp.	550.3	72.2	34.6	Cruz Grande, Chile	Baltimore, Md.	Iron ore	19,800	15,476	4,354
San Teodoro [1]	26	19.50	27	6.48	27	16.00	27	16.00	British	Anglo-Mexican Pet. Co.	412.0	53.4	24.6	Los Angeles, Calif.	Havana, Cuba	Gasoline	7,365	6,006	4,077
Salvador	26	19.30	27	7.08	27	16.35			British	Pacific Steam Nav. Co.	215.0	33.5	12.9	Champerico, Guat.	Cristobal, C. Z.	([25])	129	1,270	735
Cragpool	26	22.00	27	7.36	27	17.25	27	19.10	British	Sir. R. Ropner & Co.	420.1	54.1	25.0	Vancouver, B. C.	Hull, England	Wheat	8,050	6,170	4,505
Orient	27	5.00	27	8.15	27	18.05	29	9.25	American	Oriental Nav. Co.	376.4	52.3	22.9	Portland, Oreg.	Wilmington, Del.	Lumber	4,892	5,455	3,879
Melpomene [1]	27	7.45	27	8.37	27	19.00	27	22.30	French	Cie. Aux. DeNavigation.	425.8	56.7	26.0	Los Angeles, Calif.	Sete, France	Gasoline	8,778	7,085	5,050
Aconcagua	27	9.00	27	10.38	27	19.25	28	2.00	Chilean	Chilean Line	422.8	56.3	26.0	Valparaiso, Chile	New York, N. Y.	General	4,693	7,764	4,705
Canadian Transporter	27	5.00	27	13.16	27	19.35	27	19.35	British	Can. Nat. Steamships	400.0	52.3	13.3	Auckland, N. Z.	Montreal, Canada	General	1,630	6,228	4,491

[1] Tanker. [21] October 20, for dry-docking. [22] For orders. [23] Grain, lumber, and general. [24] Copper, tin, and nitrates. [25] Coffee, sugar, and hides.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
October 21	Pastores	United Fruit Co	Port Limon, Costa Rica.
October 21	Atlas	Royal Netherlands S. S. Co	Curacao, D. W. I.
October 22	Oranian	Leyland Line	Santiago de Cuba.
October 22	Ulua	United Fruit Co	New York via Habana.
October 23	Macabi	United Fruit Co	New York via wayports.
October 23	Cryssen	Royal Netherlands S. S. Co	Amsterdam and wayports.
October 24	Gatun	Standard Fruit & S. S. Co	New Orleans and wayports.
October 24	Cavina	Elders & Fyffes, Ltd	Avonmouth via wayports.
October 24	Rugia	Hamburg-American Line	Hamburg via wayports.
October 24	Zacapa	United Fruit Co	New York via Kingston.
October 24	Linda S. [26]	Surgeon Brothers	Colon, R. P.
October 25	Saramacca	United Fruit Co	Bocas del Toro, R. P.
October 25	Cristobal	Panama Railroad S. S. Line	New York via Haiti.
October 25	Bowden	United Fruit Co	Mobile, Ala.
October 25	Novian	Leyland Line	Liverpool via wayports.
October 25	Gatun	Standard Fruit & S. S. Co	San Blas, R. P.
October 26	Cryssen	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
October 26	Anachucuna [27]	United Fruit Co	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
October 21	Kiel	Hamburg-American Line	Hamburg via wayports.
October 21	El Atrato [28]	The Atrato Co	Cartagena, Colombia.
October 21	Pastores	United Fruit Co	New York via Habana.
October 22	Valle Riestra [27]	Costa Rican Government	Colon, R. P.
October 22	Pearl Marie [26]	R. Feuillebois	Colon, R. P.
October 22	Parismina	United Fruit Co	New Orleans and wayports.
October 23	Oranian	Leyland Line	Curacao and Colombian ports.
October 23	Macabi	United Fruit Co	Puerto Colombia.
October 24	Cryssen	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
October 24	Cavina	Elders & Fyffes, Ltd	Bristol via wayports.
October 24	Ulua	United Fruit Co	Port Limon, Costa Rica.
October 24	Rugia	Hamburg-American Line	Port Limon, Costa Rica.
October 24	Linda S. [26]	Surgeon Brothers	Bluefields, via Port Limon.
October 24	Gatun	Standard Fruit & S. S. Co	San Blas, R. P.
October 25	Zacapa	United Fruit Co	New York via wayports.
October 25	Bowden	United Fruit Co	Perme, R. P.
October 25	Saramacca	United Fruit Co	New Orleans, La.

[26] Motor schooner. [27] Motor boat. [28] Motor ship. * Other than ships passing through the Canal.

(**Continued on page 188, column 2.**)

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Notice to Mariners.

Continuation of the relocation of buoys in Corinto Harbor, Nicaragua.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *October 29, 1928.*

No. 473.

The Hydrographic Office received the following information through the Marine Superintendent, The Panama Canal:

CORINTO, NICARAGUA, *October 17, 1928.*

From: Commanding Officer.
To: Commander, Special Service Squadron.

1. The *Galveston* has relocated buoy No. 6 (10th edition, Chart No. 2604) in the following position: Bearing 116° 30″ true from Cardon Island lighthouse, distance 1,500 yards, in 30 feet of water at mean low water.

2. The black can buoy No. 3 has been removed. This can buoy has been relocated to occupy position of No. 1 buoy (10th edition, Chart No. 2604). This was done because of the shape of the buoy in question.

3. No. 1 buoy mentioned above, has been overhauled and repainted red and located bearing 129° true from Cardon Island lighthouse, distance 420 yards.

4. In order to further improve the harbor of Corinto, Nicaragua, having in mind the necessity of maneuvering merchant vessels in the immediate vicinity of the commercial dock in a very limited space owing to the shoals directly opposite the dock, it is suggested six spar buoys with the necessary anchors and chains be purchased for working the edge of these shoals and the northern limits of navigable waters. These buoys can be planted by the *Galveston* on some future visit to Corinto.

(Signed) R. P. CRAFT.

NOTE.—See Notice to Mariners No. 461, dated September 28, 1928.

H. BURGESS,
Governor.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending October 20, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Maravi	United Fruit Co		October 14		442½
Boskoop	Royal Netherlands S. S. Line		October 14		90
Knute Kelson	Norway-Pacific Line		October 14		350
Calamares	United Fruit Co	October 14	October 14	20	58
Vermont	French Line	October 14	October 14	70	7
August Leonhardt	Colombian Transport Co	October 14	October 14	42	(2)
Corinto	Panama Mail S. S. Co		October 15		2,247
Ancon	Panama Railroad S. S. Line		October 15		2,638
Paraguay	Hamburg-American Line		October 15		344
Cartago	United Fruit Co		October 15		144
City of Panama	Panama Mail S. S. Line	October 15		443	
Havre Maru	Osaka Shosen Kaisha	October 15	October 15	117	(2)
Baralt	Royal Netherlands S. S. Co	October 15	October 20	267	130
Essequibo	Pacific Steam Nav. Co	October 15	October 15	24	42
Legazpi	Spanish Line	October 15	October 16	56	406
Pastores	United Fruit Co	October 15	October 17	1,044	71
Linda S	R. Feuillebois	October 16	October 16	(1)	41
Martha	Chr. Hannevig		October 16		1,056
Perou	French Line	October 16	October 17	91	658
Collegian	Harrison Line	October 16	October 17	607	(2)
Manizales	North German Lloyd	October 16	October 20	515	133
Adolf von Baeyer	Hamburg-American Line	October 16	October 17	266	339
Colombia	Panama Mail S. S. Co	October 16	October 17	651	290
Venezuela	Panama Mail S. S. Co	October 16	October 17	123	743
Stella	Panama Mail S. S. Co		October 17		1,221
Texas	French Line	October 16	October 18	511	278
Saramacca	United Fruit Co	October 17	October 18	623	16
Sixaola	United Fruit Co	October 17	October 18	1,958	545
San Francisco	Hamburg-American Line	October 17	October 18	(1)	316½
Granada	Standard Fruit Co	October 17	October 18	648	¾
Managui	United Fruit Co	October 17	October 18	(1)	259
Cathwood	Union Oil Co	October 17	October 19	10,000	(2)
Mantaro	Peruvian Line		October 19		258
Fella	Nav. Libera-Triestina	October 18	October 18	141	(2)
Suriname	United Fruit Co	October 18	October 18	102	231
Moerdijk	Holland-American Line	October 18	October 19	607	236
George Washington	Norway-Pacific Line	October 18	October 19	350	3
Esparta	United Fruit Co	October 18	October 19	961	32
President Harrison	Dollar Line	October 19	October 19	10	(2)
Hollywood	C. R. McCormick S. S. Co	October 19	October 19	33	(2)
Granada	Standard Fruit Co	October 19	October 19	38	49
Phoenicia	Hamburg-American Line	October 19		145	
Albert Voegler	Hamburg-American Line	October 19		15	
Sonora	French Line	October 19	October 20	55	7
Almagro	Pacific Steam Navigation Co	October 19	October 20	399	(2)
Pacific Reliance	Furness, Withy & Co	October 19	October 20	(1)	267
Acajutla	Pacific Steam Nav. Co		October 20		1,163½
Uribe	Estrada G. Hermanos		October 20		819
Floreana	Colombian Transport Co	October 20		199	
Kiel	Hamburg-American Line	October 20		6	
Parismina	United Fruit Co	October 20		467	

[1] No cargo discharged. [2] No cargo laded

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending October 27, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Chateau Thierry	U. S. Government	October 15	October 16	167	38
Albert Vogler	Hamburg-American Line	October 21	October 22	393	
Frost	Hans Ericson	October 22	October 26	400	
Sirius	U. S. Government	October 23	October 24	2	
Lobos	Pacific Steam Navigation Co	October 24	October 25		50
Targis	North German Lloyd	October 25	October 26	355	2
Santa Cecelia	Grace Line	October 27	October 27		15

Official Circular.

Sale of Tug Boat.

The Panama Canal offers for sale to the highest bidder the tug boat *Porto Bello*, a seagoing, single screw, steel hull, steam, oil-burning vessel, length 126 feet, beam 23.42 feet; depth 11.75 feet; gross tonnage, 227. Sealed bids will be received in the offices of the General Purchasing Officer, The Panama Canal, Washington, D. C., and the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., not later than 10.30 o'clock a. m., December 19, 1928. Forms of proposal, Circular No. 1913, with full particulars, may be had upon application to the above-mentioned offices.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessels furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 185.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
October 27	Bowdea	United Fruit Co	Perme, R. P.	October 26	Novian	Leyland Line	New Orleans and wayports.
October 27	Heredia	United Fruit Co	New Orleans and Habana.	October 26	Gatun	Standard Fruit & S. S. Co	New Orleans and wayports.
October 27	Copyename	United Fruit Co	New Orleans, La.	October 26	Anachucuna [27]	United Fruit Co	Colon, R. P.
October 27	War Sirdar	Anglo-Saxon Petroleum Co	Curaçao, D. W. I.	October 27	Crynssen	Royal Netherlands S. S. Co	Amsterdam via wayports.
				October 27	Bowden	United Fruit Co	Mobile, Ala.

[27] Motor boat.

PORT OF BALBOA.

October 22	Frost [29]	Hans Ericson	Talara, Peru.	October 24	A. B. de O'barrio [30]	Pacific Fruit Co	Bayano River, R. P.
October 24	A. B. de O'barrio [30]	Pacific Fruit Co	Bayano River, R. P.	October 24	Dos Hermanos [30]	A. Valdez	Bayano River, R. P.
October 24	Dos Hermanos [31]	A. Valdez	Bayano River, R. P.	October 24	El Colon [30]	H. Elliot	El Real, R. P.
October 24	El Colon [30]	H. Elliot	El Real, R. P.	October 24	Sarati [30]	H. Elliot	El Real, R. P.
October 24	Sarati [30]	H. Elliot	Chiman, R. P.	October 25	Cricamola [32]	Chiriqui Land Co	Pto Armuelles, R. P.
October 24	Cricamola [32]	Chiriqui Land Co	Pto. Armuelles, R. P.	October 26	Frost [29]	Hans Ericson	Talara, Peru.

[29] Motor ship. [30] Motor schooner. * Other than ships passing through the Canal. [31] Motor schooner and barge. [32] Motor yacht.

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., November 7, 1928. No. 14.

Canal Traffic During October.

During the month of October, 1928, 557 commercial vessels and 10 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,274,945.30, and on the launches, $94.50, or a total tolls collection of $2,275,039.80.

The daily average number of transits of seagoing vessels for the month was 17.97, and the daily average tolls collection, $73,385.33. The average amount of tolls paid by each of the commercial transits was $4,084.28, as compared with $4,335.18 for the month of September.

Commercial traffic for October was the heaviest of any month in the current calendar year, and exceeded that of the previous month by 70 transits and almost $164,000 in tolls.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 10 months of the current calendar year, with the daily averages of transits and tolls:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,360.57	17.48	71,271.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
Totals	5,228	21,705,995.54	17.14	71,170.47

Tanker Traffic Through the Panama Canal in October, 1928.

During the month of October, 1928, 82 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 444,517, on which tolls of $382,224.89 were collected. Cargo amounted to 390,126 tons. In point of net tonnage, tanker traffic for the past month showed a decrease of 26.5 per cent under the same traffic for the corresponding month a year ago, while cargo tonnage decreased 33.6 per cent under the cargo tonnage of October, 1927.

Tank ships comprised 14.7 per cent of the total commercial transits through the Canal during the month; made up 17.6 per cent of the total Panama Canal net tonnage; were the source of 16.8 per cent of the tolls collected; and carried 15.1 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of October, 1928, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for October, 1927:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	8	34,295	$24,725.19	.....
Danzig	2	12,801	9,216.72	.....
Dutch	4	15,403	12,404.62	7,124
French	1	4,545	3,272.40	.....
Norwegian	3	14,876	12,111.33	6,922
United States	30	164,490	120,153.73	18,004
Totals, October, 1928	48	246,410	181,883.99	32,050
Totals, September, 1928	41	235,793	171,293.73	9,015
Totals, August, 1928	46	252,089	185,213.15	21,702
Totals, October, 1927	51	292,974	211,450.14	6,734
Pacific to Atlantic.				
British	11	57,666	60,994.65	103,043
Danzig	1	6,063	6,495.00	11,365
Dutch	1	4,336	4,386.25	7,448
French	1	5,050	5,445.00	8,778
Norwegian	1	5,268	5,611.25	9,860
United States	19	119,724	117,408.75	217,582
Totals, October, 1928	34	198,107	200,340.90	358,076
Totals, September, 1928	48	259,927	268,061.25	482,630
Totals, August, 1928	49	268,675	273,926.30	474,011
Totals, October, 1927	54	312,085	313,971.25	581,325

Of the tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for October, 1927:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
October, 1928	36	186,866	$135,890.77	7,124
September, 1928	28	161,006	115,924.32	.....
August, 1928	34	187,964	135,344.08	.....
October, 1927	39	227,302	163,657.44	.....
From Los Angeles.				
October, 1928	23	134,002	131,918.40	232,617
September, 1928	35	187,938	191,746.25	345,357
August, 1928	32	170,030	173,221.25	301,968
October, 1927	44	257,473	260,191.25	483,074

Notice to Mariners.

Explosive Anchorage—Pacific Entrance.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *November 1, 1928.*

No. 479.

Panama Canal Rules and Regulations define as follows the Explosive Anchorage at the Pacific entrance:

Area south of Naos Island bounded on the east by a line drawn south (true) from entrance gas buoy No. 1; on the south by a line drawn east (true) from Tortolita Island and on the north and west by the curve of 30 foot depth.

Attention is invited to the fact that the dumping ground of the Dredging Division is within this area and is marked by three red gas buoys "X," "Y," and "Z" which are *subject to change in position without notice.*

In using this anchorage ships should keep to the south of buoys "X," "Y," and "Z," as found, and not as shown on H. O. charts Nos. 5001 and 5002 and Coast and Geodetic Survey Charts Nos. 952 and 953. Upon approaching this anchorage at night vessels should take cross-bearings on Commission Rock Gas Buoy (red occulting light), recently established, and Flamenco Light in order to clear Tortolita Island safely.

H. BURGESS,
Governor.

Tug "Porto Bello" Offered for Sale.

At the foot of this page is an advertisement of the proposed sale of the tug *Porto Bello*. This tug, formerly the *Robert H. Smith*, was built in 1906 by the Spedden Shipbuilding Co., and was purchased by the Isthmian Canal Commission from the American Towing and Lightering Co. in 1907, arriving at Cristobal on November 17, 1907. She was employed in the Atlantic Division, largely in towing rock from Porto Bello and sand from Nombre de Dios, until May 1, 1913, when the Sixth Division took over the dredging and towing work of the Atlantic Division. Subsequently the *Porto Bello* was employed by the Dredging Division, successor to the Sixth Division, and transferred to the Marine Division on June 27, 1914, to assist in the handling of vessels at the terminal ports.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending October 27, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Pnoenicia	Hamburg-American Line		October 21		86
Albert Voegler	Hamburg-American Line		October 21		330
Kiel	Hamburg-American Line		October 21		334
Pastores	United Fruit Co	October 21	October 21	21	963
Atlas	Royal Netherlands S. S. Co	October 21		9,950	
Jamaica	Pacific Steam Navigation Co	October 21		250	
Eelbeck	Roosevelt S. S. Co	October 21	October 22	½	(2)
Parismina	United Fruit Co		October 22		151
Oranian	Leyland Line	October 22	October 23	(1)	571
Santa Luisa	Grace Line	October 22	October 23	4	(2)
Ulua	United Fruit Co	October 22	October 24	17	76
Bennekom	Royal Netherlands S. S. Co	October 23	October 23	76	(2)
Macabi	United Fruit Co	October 23	October 24	784	35
Teno	Chilean Line	October 23	October 24	(1)	1
Crijnssen	Royal Netherlands S. S. Co	October 23	October 24	3¼	1
Lagarto	Pacific Steam Navigation Co	October 23	October 24	73	252
Lobos	Pacific Steam Navigation Co	October 23	October 24	39¼	259
Cavina	Elders & Fyffes, Ltd	October 24	October 24	½	(3)
Rugia	Hamburg-American Line	October 24	October 24	180	77
Linda S.	R. Feuillebois	October 24	October 24	(1)	31
Gatun	Standard Fruit Co	October 24	October 24	243	7
Zacapa	United Fruit Co	October 24	October 25	810	138
Taormina	Italian Line	October 24	October 25	300	36
Targis	North German Lloyd	October 24	October 25	299	254
Rapot	North German Lloyd	October 24	October 25	73	172
Orduna	Pacific Steam Navigation Co	October 24	October 25	204	(2)
Durazzo	Hamburg-American Line	October 24	October 26	502	235
Orazio	Italian Line	October 24	October 26	119	758
Cauca	National Navigation Co	October 24		286	
Saramacca	United Fruit Co	October 25	October 25	289	258
Cristobal	Panama Railroad S. S. Line	October 25		4,402	
La Perla	United Fruit Co	October 25	October 26	626	178
Margaret Johnson	Johnson Line	October 25	October 26	312	53
Lochkatrine	Pacific Steam Navigation Co	October 25	October 26	30	383½
Novian	Leyland Line	October 25	October 26	752	20
Gatun	Standard Fruit Co	October 26	October 26	(1)	594
Orcoma	Pacific Steam Navigation Co	October 26	October 27	3	31
Crijnssen	Royal Netherlands S. S. Co	October 26	October 27	26	376
Santa Cecelia	Grace Line	October 26	October 27	15	253
Salvador	Pacific Steam Navigation Co	October 27		129	
War Sirdar	Anglo-Saxon Petroleum Co	October 27		7,410	
Peru	Danish East Asiatic Co	October 27		91	
Bowden	United Fruit Co	October 27	October 27	2	352½
Coppename	United Fruit Co	October 27		776	
Ecuador	Panama Mail S. S. Co	October 27		354	
Heredia	United Fruit Co	October 27		651	
Orient	Oriental Navigation Co	October 27		568	

[1] No cargo discharged. [2] No cargo laded. [3] Four packages.

Official Circular.

Sale of Tugboat.

The Panama Canal offers for sale to the highest bidder the tug boat *Porto Bello*, a seagoing, single screw, steel hull, steam, oil-burning vessel, length 126 feet, beam 23.42 feet; depth, 11.75 feet; gross tonnage, 227. Sealed bids will be received in the offices of the General Purchasing Officer, The Panama Canal, Washington, D. C., and the Chief Quartermaster, The Panama Canal, Balboa Heights, C. Z., not later than 10.30 o'clock a. m., December 19, 1928. Forms of proposal, Circular No. 1913, with full particulars, may be had upon application to the above-mentioned offices.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 3, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Tainui	27	8.45	28	6.05	28	13.12	28	14.30	British	Shaw, Savill & Albion	479.8	61.1	26.6	London, England	Bluff, N. Z	General	5,000	10,657	7,617
Seattle [2]	27	1.40	28	6.15	28	13.48	28	15.15	German	Hamburg-AmericanLine	480.0	61.0	25.0	Hamburg,Germany	Vancouver, B. C	General, bananas	6,151	9,267	6,834
R-3 [3]	24	21.20	28	7.20	28	14.00	30	15.00	Peruvian	Peruvian Government	180.0	18 0	14 0	N. London, Conn.	Callao, Peru	Ballast			
R-4 [3]	24	21.20	28	7.20	28	14.00	30	15.00	Peruvian	Peruvian Government	180.0	18.0	14.0	N. London, Conn.	Callao, Peru	Ballast			
Cauca [2]	24	17.05	28	7.20	28	14.52	28	20.38	Colombian	National Navigation Co.	107.2	22.0	10.3	Cristobal, C. Z	Buenaventura, Col.	General	395	238	163
Peru [2]	27	19.00	28	7.08	28	14.40	29	1.49	Danish	East Asiatic Co	425.0	55.1	24.10	Antwerp, Belgium	Vancouver, B. C	General	7,206	7,407	5,660
Bradfyne	27	23.35	28	8.30	28	16.34	28	18.02	British	Standard Oil Co	400.2	54.2	24.0	Philadelphia, Pa	Nagasaki, Japan	Case oil	7,700	6,961	5,365
Malayan Prince [2]	28	8.05	28	9.25	28	15.26	28	16.15	British	Prince Line, Ltd	441.7	60.3	25.0	New York, N. Y	Manila, Philippines	General	6,979	9,209	6,245
Ecuador	27	14.10	28	9.30	28	17.15	29	16.40	American	Panama Mail S. S. Co.	380.6	48.7	23.3	New York, N. Y	San Francisco, Cal.	General	2,693	5,926	4,178
Pennsylvanian	28	3.40	28	9.56	28	17.35	28	18.31	American	Amer.-Hawaiian Line	407.7	53.7	21.0	Boston, Mass	Portland, Oreg	General	4,292	7,107	5,041
Walter D. Munson	28	11.35	28	12.30	28	19.02	28	23.50	American	Munson S. S. Line	368.2	48.3	22.0	New York, N. Y	Tacoma, Wash	General	4,907	4,606	3,271
Charles H. Cramp	28	14.00	28	14.15	28	21.21	28	22 46	American	Isthmian S. S. Lines	404.6	53.9	27.6	Baltimore, Md	Seattle, Wash	Steel, general	7,533	6,755	4,750
Watertown [2]	28	14.20	28	14.45	28	22.01	29	2.30	American	Cities ServiceTrans.Co.	416.9	56.2	21.0	New York, N. Y	Los Angeles, Calif.	Ballast		6,717	4,778
Navy launch			28		28	14.03			American	U. S. Navy				Cristobal, C. Z	Gatun, C. Z				
Silver Shell [2]	28	15.20	28	19.20	29	9.03	29	10.11	Dutch	Anglo-Saxon Pet. Co	411.0	53.0	21.6	Rotterdam,Holland	Los Angeles, Calif.	Ballast		6,213	4,343
Suspearco	28	21.40	29	6.08	29	13.52	29	15.15	American	Transmarine Lines	324.0	46.2	18.6	Pensacola, Fla	Los Angeles, Calif.	General	2,218	3,984	2,612
Sunelseco	28	22.40	29	6.15	29	13.55	29	16.00	American	Transmarine Lines	324.0	46.2	16.0	Newark, N. J	San Francisco, Cal.	General	1,515	3,984	2,612
Solana [2]	29	00.50	29	6.23	29	13.00	29	14.30	American	Tidewater Oil Co	419.5	56.5	23.0	New York, N. Y	San Francisco, Cal.	Ballast		7,060	5,025
La Perla	29	3.40	29	7.22	29	14.15	29	15.25	American	United Fruit Co	325.3	48.1	21.0	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	785	4,033	2,261
Sagoland	29	4.45	29	7.22	29	15.13	29	16 20	Swedish	Axel Brostrom & Son	430.2	57.2	17.0	Rotterdam,Holland	Vancouver, B. C	Ballast		6,840	5,014
Willsolo	29	7.30	29	8.10	29	16.13	29	17.40	American	Williams S. S. Line	434.0	57.5	21.6	Baltimore, Md	Seattle, Wash	General	4,489	7,983	5,882
Port Wellington	29	6.05	29	12.58	29	20.32	29	21.42	British	Com'lth & Dom. Line	470.0	60 0	29.2	London, England	N. Plymouth, N.Z.	General	7,066	10,381	7,551
Vojvoda Putnik	29	13.50	29	14.05	29	21.21	30	00.45	Yugoslav	Yugoslav-Amer. Line	400.0	52.0	16.0	Alexandria, Egypt	Tocopilla, Chile	Ballast		6,016	4,178
Lautaro [2]	29	7.15	29	14.05	29	21.50	30	2.25	British	Pacific Steam Nav. Co.	399.1	52.0	17.3	Glasgow-England	Corral, Chile	General	2,107	6,759	4,840
Pardo	29	13.00	29	15.00	29	22.20	29	23.24	British	Royal Mail S. P. Co	375.0	48.3	17.0	Newport, England	Seattle, Wash	Ballast		4,906	3,565
Gen. Wm. M. Graham [4]			29	9.10	29	16.14			American	U. S. Army	156.0	32.0		Cristobal, C. Z	Balboa, C. Z				
Pomona	29	14.50	29	20.25	30	11.04	30	12.05	American	Norton, Lilly & Co	440.0	56.0	28.1	Mobile, Ala	Seattle, Wash	Steel	10,432	8,324	6,036
City of Panama [2]	15	17.00	30	6.17	30	13.58	30	16.30	Panaman	Panama Mail S. S. Co.	296.0	46.0	21.3	Cristobal, C. Z	San Francisco, Cal.	General	2,802	3,848	2,603
Chelatros	29	17.50	30	6.20	30	14.02	30	15.10	Greek	Kassos Steam Nav. Co.	359.9	51.9	13.6	Cardiff, England	Arica, Chile	Ballast		4,715	3,384
Dixie Arrow [2]	29	19.15	30	6.40	30	14.21	30	15.35	American	Standard Oil Co	468.3	62.7	20.0	New York, N. Y	Los Angeles, Calif.	Ballast		9,744	7,140
West Lynn [2]	29	21.30	30	7.30	30	14.50	30	15.55	British	Oakwyn S. S. Co	401.0	54.0	17.0	Greenock, England	Vancouver, B. C	Ballast		6,752	5,161
Broad Arrow [2]	29	22.40	30	7.25	30	16.29	30	17.35	American	Standard Oil Co	467.6	62.7	25.4	Beaumont, Texas	Far East	Kerosene	11,437	9,700	6,842
Hedgehope	30	00.30	30	8.20	30	17.24	30	18.31	British	Flood Brothers	385.0	52.8	22 6	Tyne, England	San Francisco, Cal.	General	6,160	5,590	4,055

[2] Tanker. [3] Motor ship. [3] Submarine. [4] Mine planter.

Hans Leonbardt [2]	30	6.25	30	8.35	30	17.45	30	21.00	German	Colombian Mar. Co.	230.8	36.8	14.0	New York, N. Y.	Buenaventura, Col.	General, cattle	350	1,568	909
Somerset	30	9.45	30	9.55	30	18.04	31	3.48	British	Federal Steam Nav. Co.	460.0	62.6	28.0	Newport, England	Auckland, N. Z.	General	8,152	10,550	7,993
Floreana [5]	20	22.30	30	11.05	30	20.15	31	1.10	Colombian	Colombian Transp. Co.	150.0	27.2	9.0	Cristobal, C. Z.	Buenaventura, Col.	General	250	410	307
San Quirino [1]	30	11.30	30	11.40	30	18.31	30	23.08	British	Anglo-Mexican Pet. Co.	407.0	52.4	20.0	Newcastle-on-Tyne	Los Angeles, Calif.	Ballast		6,156	4,212
Brielle	29	11.20	30	14.00	30	21.35	31	1.30	Dutch	Royal Neth. S. S. Co.	403.0	58.0	26.0	Hamburg,Germany	Valparaiso, Chile	[8]	5,082	7,322	4,798
Columbian	30	14.38	30	15.20	30	22.06	30	23.08	American	Amer.-Hawaiian Line	404.6	54.0	19.5	Boston, Mass.	Seattle, Wash.	General	2,875	6,760	4,450
Walter A. Luckenbach	30	16.55	30	17.20	31	10.30	31	11.40	American	Luckenbach Line	446.5	56.1	23.8	Boston, Mass.	Seattle, Wash.	General	5,268	8,785	6,567
Canadian Leader	30	19.40	31	6.03	31	14.20	31	16.55	British	Can. Nat. Steamers	400.3	52.0	21.3	Montreal, Canada	Adelaide, Australia	General	3,708	5,891	4,114
Papoose [1]	31	00.50	31	6.20	31	14.56	31	16.15	American	Petroleum Nav. Co.	423.0	53.2	18.0	Malmo, Sweden	Los Angeles, Calif.	Ballast		6,285	4,370
Amberton	31	6.45	31	8.20	31	15.54	31	16.55	British	R. Chapman & Sons	409.6	54.0	17.0	Savona, Italy	Vancouver, B. C.	Ballast		5,756	4,139
Orleans	31	8.05	31	8.55	31	16.48	31	17.55	American	Quaker S. S. Line	395.0	55.0	21.0	Wilmington, Del.	Portland, Oreg.	General	3,664	7,330	5,233
Manhattan Island	31	9.30	31	9.45	31	16.55	31	18.28	American	The Redwood Line	386.4	52.2	18.0	Gulfport, Miss.	San Francisco, Cal.	General	2,163	5,696	4,125
Point Montara	31	10.30	31	10.40	31	18.09	31	19.07	American	Swayne & Hoyt	324.0	46.2	22.0	Tampa, Fla.	Vancouver, B. C.	General	3,636	3,984	2,612
Moveria [2]	30	13.40	31	11.55	31	19.00	31	20.17	British	Donaldson Line	385.0	51.6	18.0	Glasgow-England	Vancouver, B. C.	General, bananas	1,061	6,576	4,724
Lebore	31	7.25	31	12.40	31	20.30	31	22.30	American	Ore S. S. Corp.	549.0	72.0	23.10	New York, N. Y.	Cruz Grande, Chile	Ballast		14,325	4,635
Argon	30	16.50	31	12.15	11–1	12.48	11–1	14.05	British	James Det. Weiler	120.0	22.0	14.6	Aberdeen, England	Vancouver, B. C.	General	66	222	75
Illingworth	31	10.45	31	14.45	1	11.36	1	12.50	British	Thos. Rice & Co	430.0	55.9	26.3	Galveston, Texas	Yawata, Japan	[9]	6,790	6,987	4,933
Swan [6]			31	8.00	31	14.56			American	U. S. Navy	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Motor Sailor			31		31	10.03			American	U. S. Navy				Cristobal, C. Z.	Gatun, C. Z.				
Levant Arrow [1]	11–1	5.20	11–1	6.35	11–1	13.33	1	14.45	American	Standard Transp. Co.	468.3	62.7	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,744	7,039
Buffalo Bridge	1	7.45	1	8.10	1	15.03	1	18.25	American	Charles Nelson & Co.	324.0	46.0	19.0	Baltimore, Md	Seattle, Wash.	General	2,550	3,985	2,630
Santa Maria [2]	1	4.35	1	8.45	1	14.31	2	00.04	American	Grace Line	466.0	64.0	22.0	New York, N. Y.	Talcahuano, Chile	General	3,075	10,350	6,382
Slemmestad [2]	1	7.20	1	9.25	1	15.50	1	17.05	Norwegian	A. F. Klaveness	376.0	53.0	24.0	Mobile, Ala.	Osaka, Japan	Cotton, steel	6,300	6,256	4,663
Nohata	1	2.15	1	10.35	1	17.49	1	17.15	British	Hain S. S. Co.	416.0	54.0	19.6	New York, N. Y.	Adelaide,Australia	General	3,728		
Nitro [7]	1	9.40	2	6.00	2	12.49	5	8.17	American	U. S. Navy	460.0	60.11	25.0	HamptonRoads,Va.	San Diego, Calif.	Naval stores	2,615		
President Monroe	2	5.45	2	7.10	2	14.10	2	21.40	American	Dollar Line	502.1	62.2	27.0	New York, N. Y.	Penang, Straits Set.	General	4,199	12,023	8,495
Chiman [2]	10–29	14.40	2	9.00	2	16.23	2	22.55	Panaman	National Navigation Co.	116.0	21 0	8.0	Cristobal, C. Z.	Buenaventura, Col.	General	348	211	124
Denpark	11–2	8.45	2	10.15	2	17.17	2	20.58	British	J. & J. Dendolm	350.0	49.0	14.6	Santa Cruz, C. Is.	Peru	Ballast			
Rockpool	2	19.15	2	20.05	3	9 30	3	11.42	British	Sir. R. Ropner & Co	405.1	53.5	16.0	So. Shields, Eng	Vancouver, B. C.	Ballast		5,869	4,271
Spreewald [2]	2	10.45	3	6.05	3	13.38	4	11.27	German	Hamburg-AmericanLine	399.0	54 0	19 7	Hamburg,Germany	Valparaiso, Chile	General	3,433	6,791	4,997
Arwyco	2	14.28	3	6.19	3	14.30	3	20.27	British	Tafford S. S. Co.	225.0	34 0	17.8	Antwerp, Belgium	Shanghai, China	Liquors	685	1,370	783
Eastmoor	2	14.45	3	6.20	3	14.11	3	15.35	British	Can. Nat. Steamers	399.8	52.0	17.6	Montreal, Canada	Dunedin, N. Z.	General	2,740	5,958	4,245
Portland Maru	2	20.30	3	7.25	3	15.01	3	19.20	Japanese	Kokusai Kisen Kaisha	385.0	51.0	22.0	Portland, Me.	Yawata, Japan	[10]	4,231	5,919	4,424
Raby Castle [2]	3	00.05	3	7.25	3	15 18	3	17.00	British	James Chambers & Co.	412.8	52.3	24.10	New York, N. Y.	Fusan, Japan	General	6,573	6,805	5,077
Port Curtis	3	4.45	3	8.25	3	15.56	3	17.00	British	Com'lth & Dom. Line	450.0	58.5	23 0	New York, N. Y.	Dunedin, N. Z.	General	2,045	8,500	6,140
Jamaica	10–21	15.46	3	9.38	3	17.30	3	18.40	British	Pacific Steam Nav. Co.	220.0	34 0	13.0	Cristobal, C. Z.	Champerico, Guat	General	796¼	1,187	622
Benjamin Franklin [2]	11–1	18.00	3	10.00	3	16.49	4	14.05	Norwegian	Norway-Pacific Line	452.0	59.5	20.5	Oslo, Norway	Vancouver, B. C.	General, bananas	3,586	9,082	6,140
Hanover	3	9 35	3	11.00	3	17.54			American	Tampa Interocean Co.	434.0	57.6	20.0	Galveston, Texas	Shanghai, China	Cotton	4,881	7,982	5,911
Uganda	1	2.10	3	11.15	3	18 09	3	19.20	British	McClay & McIntyre	402.0	52 0	17.6	New York, N. Y.	Valparaiso, Chile	General	350	5,593	4,069
Cali	1	17 55	3	12.14	3	18.57	3	20.15	German	North German Lloyd	216.0	33.0	14.2	Cristobal, C. Z.	Buenaventura, Col.	General	350	1,105	698
Pacific Exporter [2]	2	8.50	3	13.10	3	19.49	3	21.08	British	Furness Withy & Co	435.0	60.5	20 0	Glasgow-England	Vancouver, B. C.	General, bananas	1,394	9,633	5,998
Pacific Commerce [2]	3	13.25	3	13.50	3	21.55	3	22.00	British	Furness Withy & Co	420.0	54.0	19 0	New York, N. Y.	Shanghai, China	[11]	3,287	6,996	5,346

[1] Tanker. [5] Motor schooner. [6] Mine sweeper. [7] Ammunition ship. [8] Cement, iron, and general. [9] Cotton, carbon, and scrap iron. [10] Scrap steel and tobacco. [11] Tobacco, automobiles, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Cambrai [12]	27	6.30	28	6 18	28	13.15	28	13.15	American	War Department	448 0	58 2	24 0	San Francisco, Cal.	Brooklyn, N. Y.	Army supplies.	179	.....	.....
Dean Emery [1]	27	15.10	28	6.52	28	14.40	28	14.40	American	Huasteca Pet. Co	429 3	59 2	26 6	Los Angeles, Calif	Baltimore, Md	Gasoline	9,300	7,709	5,517
Elmshorn	27	19.30	28	8.12	28	16.00	28	17.40	German	Hamburg-American Line	397.0	54 0	24 4	Corral, Chile	Hamburg, Germany	General	6,903	5,965	4,288
Lochgoil [13]	28	00.30	28	8.55	28	16.15	28	18.45	British	Royal Mail S. P. Co	485 6	62 3	29 2	Vancouver, B. C.	Rotterdam, Holland	General	9,550	10,803	7,606
Theodore Roosevelt [13]	28	1.15	28	10.00	28	18 15	28	23.55	Norwegian.	Norway-Pacific Line	425.5	55.2	28.2	Vancouver, B. C.	Oslo, Norway	General	8,901	7,593	5,637
Yero Carras	28	14.30	28	15.10	28	22.30	28	22.30	Greek	Carras Brothers	385.0	50 0	24.6	Tocopilla, Chile	Azores [16]	Nitrates	7,250	5,145	3,710
Francis E. Powell [1]	28	23.30	29	5.58	30	12.02	30	12.02	American	Atlantic Refining Co	431.0	59.2	26.0	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,544	7,860	5,101
Chiman [13]	29	1.00	29	6 21	29	14.40	11-2	9.00	Panaman	National Navigation Co.	116 0	21 0	9 8	Buenaventura, Col.	Cristobal, C. Z	([17])	233	211	124
Dryden	28	21.00	29	6.32	29	14.30	29	14 30	American	Tampa Interocean Co.	434 3	57 7	24.6	Iloilo, P. I	Baltimore, Md	General	8,113	7,983	5,882
Empire Arrow [1]	28	23.30	29	7.31	29	18.05	29	18.05	American	Standard Transp. Co.	463 0	63 0	28 0	Los Angeles, Calif	Providence, R. I.	Kerosene	12,153	9,841	6,946
Harry Luckenbach	28	23.00	29	8.27	29	15.10	29	15.10	American	Luckenbach Line	448 9	60 2	28.0	Seattle, Wash	Mobile, Ala	Lumber, general.	7,200	9,262	6,853
Canadian Scottish	29	4.30	29	8 58	29	18.40	29	21.10	British	Can. Nat. Steamers.	400 0	53 2	18 0	Adelaide, Australia.	Montreal, Canada	General	2,339	5,905	4,129
Maple Branch	29	7.50	29	9.15	29	19 00	29	20.10	British	F. and W. Ritson	400 0	52.0	23.8	Valparaiso, Chile	Liverpool, England	General	6,721	5,618	4,116
Cape of Good Hope [13]	29	9.20	29	10.07	29	20.12	29	22.20	British	Lyle Shipping Co	405 0	52.0	25.0	Vancouver, B. C.	Hamburg, Germany	General	6,900	5,851	4,284
Notre Dame de Fourviere	29	9.30	29	10.42	29	21.00	30	16.55	French	French Line	427 3	58 3	29 7	Vancouver, B. C.	Le Havre, France.	General	8,319	8,043	5,454
Gracefield	29	12.15	29	13 37	29	20 50	29	20.50	British	E. J. Sutton & Co	390 0	53 5	23 0	Vancouver, B. C.	Sharpness, England	Wheat	7,148	5,732	4,181
Hawaiian	29	13 00	29	14.09	29	22.00	29	22.00	American	Amer.-Hawaiian Line	404 6	53 9	27 6	Seattle, Wash	Boston, Mass	General	7,653	6,766	4,767
Illinois	29	17.20	29	18.15	30	13.35	.....	.....	French	French Line	400.0	51.6	27 0	San Antonio, Chile	Le Havre, France	General	8,219	6,336	4,301
Chilore	30	1.30	30	6.02	30	15.15	30	15.15	American	Ore S. S. Corp	549 6	72 2	35 0	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	15,438	9,348
Gold Shell [1]	29	14.50	30	6.39	30	15.41	30	19.15	Dutch	Neder.Ind.Tank.Matts	411 6	53 4	26 2	Los Angeles, Calif	Land's End, Eng. [16]	Gasoline	7,448	6,201	4,336
Onondaga	29	15.40	30	7.16	30	17.35	30	22.35	American	Ford Motor Co	251 0	43 6	20 0	Vancouver, B. C.	New York, N. Y.	([18])	3,074	2,656	1,621
Orient City	29	23.30	30	7.55	30	16.20	30	16.20	British	Sir W. R. Smith & Sons	396 0	53 0	25.7	Vancouver, B. C.	Leixoes, Portugal	Bulk wheat	7,868	5,979	4,419
Ambassador	30	00.25	30	8 59	30	18.30	30	18 30	British	Hall Brothers S. S. Co.	399 0	53 2	24 0	Iquique, Chile	Azores [16]	Nitrates	7,800	5,983	4,193
Tusitala [14]	30	5.00	30	9.15	11-2	12.10	11-2	12.10	American	Ship Tusitala, Inc	261.0	39.4	21.0	Seattle, Wash	Baltimore, Md	Magnasite	2,500	1,802	1,646
Perene	28	19.15	30	9.58	39	19.03	31	6.10	Peruvian	Peruvian Line	270 0	39.0	18 4	Callao, Peru	New York, N. Y.	([19])	2,034	2,168	1,529
Guatemala	30	4.00	30	13.32	30	20.35	31	14.05	American	Panama Mail S. S. Co.	360 0	51.5	20.0	San Francisco, Cal.	New York, N. Y.	General	2,384	5,776	4,081
Manukai	30	11.40	30	13.38	30	21.32	30	21.32	American	Amer.-Hawaiian Line	480 6	62 3	28.0	San Francisco, Cal.	New York, N. Y.	General	7,739	10,316	6,561
F. J. Luckenbach	30	13.45	30	14.21	30	22.35	30	22.35	American	Luckenbach Line	446.0	50.1	31 0	Portland, Oreg	Boston, Mass	General	9,271	8,508	6,179
Florence Luckenbach	30	16.35	30	17.15	31	11.12	31	11.12	American	Luckenbach Line	401 8	52.2	24.0	Portland, Oreg.	Mobile, Ala	General	7,030	6,002	4,621
Galveston [15]	.....	.....	31	6.11	31	13.50	11-1	6.30	American	U. S. Navy	292.0	44.0	16 6	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
Tulsa [15]	.....	.....	31	6.19	.....	.....	.....	.....	American	U. S. Navy	225 0	41.2	13.3	Balboa, C. Z	Gatun, C. Z	.....	.....	.....	.....

[1] Tanker. [12] U. S. Army transport. [13] Motor ship. [14] Sailing ship. [15] Cruiser [16] For orders. [17] Coffee, platinum, and general. [18] Lumber and automobile parts. [19] Copper, silver, and general.

London Importer	30	23.45	31	6.58	31	14.40	31	14.40	British	Furness, Withy & Co.	450.4	58.0	29.2	Vancouver, B. C.	Glasgow, Scotland	General	8,123	8,405	5,855
Emmanuel Stavroudis	29	22.25	31	7.20	31	15.55	31	17.10	Greek	Emmanuel Stavroudis	398.5	48.5	26.0	Tocopilla, Chile	Azores [16]	Nitrates	7,300	5,472	3,753
Egypt Maru	30	17.30	31	8.20	31	17.05	31	18.25	Japanese	Kokusai Kisen Kaisha	400.0	53.7	.....	Vancouver, B. C.	Norfolk, Va. [16]	Wheat	8,557	7,018	5,059
O–9 [20]	.....	.....	31	8.49	31	18.10	.....	.....	American	U. S. Navy	175.0	16.4	.....	Balboa, C. Z.	Cristobal, C. Z.	.....	.....	.....	.....
Suscolanco	31	3.46	31	9.06	31	18.20	11–1	9.15	American	Transmarine Lines	324.0	46.2	23.0	San Francisco, Cal.	New York, N. Y.	Lumber	4,250	3,984	2,612
Germar	31	3.00	31	9.15	31	18.45	31	22.00	German	North German Lloyd	385.0	53.2	25.6	Corral, Chile	Antwerp, Belgium	General	7,350	6,081	4,618
Kinderdijk	31	6.30	31	10.00	31	19.55	11–1	12.15	Dutch	Holland-American Line	469.7	58.2	24.8	Vancouver, B. C.	Antwerp, Belgium	General	8,807	8,515	6,060
Paris City	31	8.45	31	10.24	31	20.15	2	8.00	British	Sir. W. R. Smith & Sons	411.5	55.0	28.0	Portland, Oreg.	Hull, England	Lumber, grain	9,000	6,673	4,763
Sunoil [1 13]	31	9.40	31	10.41	31	20.35	1	2.15	American	Sun Oil Co	480.6	66.0	29.2	Los Angeles, Calif.	Marcus Hook, Pa.	Gasoline	13,586	9,610	6,397
Willanglo	31	10.00	31	11.10	31	21.00	31	21.00	American	Williams S. S. Line	409.0	53.3	24.2	San Francisco, Cal.	Baltimore, Md.	Lumber, general.	7,400	6,510	4,827
Losada [13]	31	5 53	31	12.24	31	22 05	31	22.55	British	Pacific Steam Nav. Co	406.0	54.2	26.9	Corral, Chile	Liverpool, England	General	8,390	7,221	4,844
Cerigo	31	11.10	31	12 57	31	23.15	.....	.....	German	Hamburg-AmericanLine	227.2	34.4	13.9	Guayaquil, Ecuador	Cristobal, C. Z.	General	766½	1,572	1,011
Witell	31	11.40	31	14.15	31	23.59	31	23.59	German	North German Lloyd	449.0	58.3	24.8	Vancouver, B. C.	Bremen, Germany	General	7,161	7,816	5,755
GeorgeH.Jones [1]	31	19.00	11–1	6.08	11–1	13.35	11–1	13.35	American	Standard Shipping Co.	429.3	59.2	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,435	7,689	5,667
Paul Shoup [1]	31	21.44	1	6.37	1	14.05	1	14.05	American	Associated Oil Co.	424.4	58.2	26.0	San Francisco, Cal.	Philadelphia, Pa.	Gasoline	9,126	7,333	5,182
Hadnot [1]	31	22 35	1	7.40	1	15.10	1	15.10	American	Cities Service Trans.Co.	416.9	56.2	26.8	Los Angeles, Calif.	Boston, Mass.	Gasoline	8,345	6,706	4,639
Trimountain [1]	31	17.3	1	8.14	1	16.05	1	16.05	American	B. L. Shipping Co.	416.9	56.2	27.3	Los Angeles, Calif.	New York, N. Y.	Gas oil	9,000	6,728	4,734
Sucarseco	31	22 30	1	8.48	1	16.30	1	16.30	American	Transmarine Lines	324.0	46.2	23.0	Vancouver, B. C.	Newark, N. J.	Lumber	4,040	3,984	2,628
Ohio Maru	11–1	1 00	1	9.16	1	17.35	1	19.55	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	26.7	Seattle, Wash.	Gibraltar [15]	Wheat	7,700	5,928	4,381
San Jose	1	5 05	1	10.20	1	17.40	2	16.30	American	United Fruit Co	330.0	44.6	18.0	San Francisco, Cal.	Port Limon, C. R.	General	738	3,670	2,353
Cali	1	9.40	1	11.02	1	17.55	3	12.14	German	North German Lloyd	216.6	32.9	12.2	Guayaquil, Ecuador	Cristobal, C. Z.	General	257	1,105	698
Point Gorda	1	11.10	1	12.09	1	19.05	1	19.05	American	Swayne & Hoyt	324.0	46 2	22.0	Vancouver, B. C.	New Orleans, La.	Lumber, general.	3,829	3,984	2,643
Dio	1	16.50	1	18.03	2	8.45	2	8.45	American	Redwood Line, Inc	386 8	52.2	23.6	San Francisco, Cal.	New Orleans, La.	[23]	6,152	5,708	4,131
Trocas [1 13]	1	15 25	2	6.04	2	13.45	2	13.45	British	Anglo-Saxon Pet. Co	440.0	59.5	27.0	Los Angeles, Calif.	Curacao, D. W. I.	Gasoline	9,162	7,918	4,797
Lucigen [1]	1	23.00	2	6.38	2	14.55	2	16.35	British	H. E. Moss & Co	388.0	50.5	24.9	Los Angeles, Calif.	Rouen, France	Benzine	6,248	5,088	3,741
Penelope [1 13]	2	1.55	2	7.31	2	15.05	2	16.00	Danzig	Standard Oil Co., N. J.	483.0	63.0	27.0	Talara, Peru	Hamburg, Germany	Gasoline	11,180	9,302	6,127
Aladdin [1]	2	4.05	2	7.51	2	15.35	2	15.35	American	Standard Transp. Co.	435.6	56.2	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,666	7,408	5,112
Canada [13]	2	3.35	2	8 19	2	16.55	3	1.25	Swedish	Johnson Line	425.0	56.1	26.4	Seattle, Wash	Stockholm, Sweden	[24]	7,139	7,476	5,485
Fort Armstrong	2	3.50	2	8 52	2	16.55	2	16.55	American	Charles Nelson & Co.	324.0	46.2	23.0	Los Angeles, Calif.	Savannah, Ga.	[25]	4,440	3,984	2,628
El Panquiaco [21]	25	15 39	2	9.00	2	16.45	2	16 45	Panaman	Panaman Government	125 6	23.5	.....	Balboa, C. Z.	Cristobal, C. Z.	.....	.....	.....	.....
Santa Cecilia	11–2	5.15	2	9.19	2	17.15	2	17.15	American	Argonaut S. S. Co.	404 6	53.9	27.0	Englewood, B. C.	Baltimore, Md.	Lumber, ore.	6,844	6,745	4,562
Itauri	1	14.20	2	9 42	2	18.15	2	22.15	German	Hamburg-AmericanLine	439.0	55.6	25.6	Valparaiso, Chile	Hamburg, Germany	[26]	8,300	7,004	5,017
Nevadan	2	11.10	2	11 46	2	18.35	2	18.35	American	Amer.-Hawaiian Line	460.0	57.8	25.1	Portland, Oreg.	Boston, Mass.	General	7,465	6,829	4,627
Maine	2	12.30	2	13 15	2	20.30	2	20.30	American	Seas Shipping Co.	402.0	54.2	26.6	Everett, Wash.	New York, N. Y.	Lumber	7,197	6,936	5,024
Port Dunedin [13]	2	10 35	2	14 33	2	21.35	2	21 35	British	Com'lth & Dom. Line.	466 9	59.8	24.0	Lyttleton, N. Z.	London, England	Frozen, general.	5,500	9,959	7,226
Pacific Pine	2	16.45	2	17.22	3	11.35	3	11.35	American	Dimon S. S. Corp.	410 5	54.3	25.6	Seattle, Wash.	Baltimore, Md.	Lumber	7,300	6,583	4,808
Steelore	2	1.30	3	6 07	3	15.30	3	15.30	American	Ore S. S. Corp.	550.3	72.2	34.6	Cruz Grande, Chile	Sparrows Pt., Md.	Iron ore	20,000	15,551	4,297
Tiberton	3	00 15	3	6 45	3	17.00	3	18.35	British	R. Chapman & Sons	400.0	52 4	24.6	Vancouver, B. C.	Lisbon, Portugal.	Wheat	7,366	5,699	4,126
Swan [22]	.....	.....	3	6 51	3	17.00	.....	.....	American	U. S. Navy	188 0	35.6	.....	Balboa, C. Z.	Cristobal, C. Z.	[27]	.....	.....	.....
Gen. Wm. M. Graham	.....	.....	3	7.02	3	18.00	.....	.....	American	U. S. Army	160 2	32.0	.....	Balboa, C. Z.	Cristobal, C. Z.	.....	.....	.....	.....
David McKelvy [1]	3	2.30	3	7.15	3	17 55	3	21.00	American	Tidewater Oil Co	430.0	59.2	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline tops	10,000	7,629	5,325
Alvarado	3	4.40	3	8 28	3	18 15	3	23.45	British	Pacific Steam Nav. Co	303.0	43.0	15.2	Paita, Peru	New York, N. Y.	[28]	601	2,844	1,750
Nitokris	3	6 00	3	9.06	3	19.30	4	00.05	German	Hamburg-AmericanLine	429.0	50.0	26.4	Valparaiso, Chile	Rotterdam, Holland	General	.....	6,652	4,212
King Robert	3	6 05	3	9 26	3	19.25	3	19.25	British	Dodd, Thomson & Co.	400.0	53.0	26.0	Vancouver, B. C.	London, England	Wheat	7,960	6,052	4,212
El Lobo [1]	3	6 00	3	10.06	3	20.15	3	20.15	British	C. T. Bowring & Co.	385.2	51.0	22.6	La Libertad, Ecd'r.	Philadelphia, Pa.	Crude oil	6,203	4,851	3,326
Mundelta	3	14 15	3	15.04	3	22 25	3	22 25	American	Munson, McCor'k Line	370.0	53.2	23.0	Tacoma, Wash.	Baltimore, Md.	Lumber, general.	6,350	5,668	4,297

[1] Tanker. [20] Submarine. [21] Revenue cutter. [22] Auxiliary mine sweeper. [23] Lumber, sugar, and general. [24] Flour, canned, and dried fruits. [25] Lumber, copper, and general.
[26] Nitrates, ore, and cotton. [27] Towing barge *No. 2*. [28] Coffee, cocoa, wood, and hats. All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

MOVEMENTS OF OCEAN VESSELS.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
October 28	Ulua	United Fruit Co	Port Limon, Costa Rica.
October 29	Wanks	Standard Fruit & S. S. Co	New Orleans, La.
October 29	Toloa	United Fruit Co	New York via Habana.
October 29	William M. [29]	G. I. Bryan	Colon, R. P.
October 30	Pellerin de La Touche	French Line	Havre via wayports.
October 30	Anachucuna [30]	United Fruit Co	Colon, R. P.
October 31	Orinoco	Hamburg-American Line	Hamburg via wayports.
October 31	Suriname	United Fruit Co	New Orleans, La.
October 31	Santa Marta	United Fruit Co	New York via Kingston.
November 1	Granada	Standard Fruit & S. S. Co	New Orleans, La.
November 1	Coppename	United Fruit Co	Port Limon, Costa Rica.
November 2	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
November 2	Mayari	United Fruit Co	New York via Cuba.
November 2	Linda S. [31]	Surgeon Brothers	Colon, R. P.
November 3	Orinoco	Hamburg-American Line	Port Limon, Costa Rica.
November 3	Cartago	United Fruit Co	New Orleans via Habana.

* DEPARTURES.

Date.	Vessel.	Line.	For—
October 28	Coppename	United Fruit Co	Port Limon and Bocas.
October 28	Ulua	United Fruit Co	New York via Habana.
October 29	Heredia	United Fruit Co	New Orleans and wayports.
October 29	Cristobal	Panama Railroad S. S. Line	New York via Haiti.
October 29	William M. [29]	G. I. Bryan	Bluefields, Nicaragua.
October 29	War Sirdar	Anglo-Saxon Petroleum Co	Curacao, D. W. I.
October 30	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
October 30	Anachucuna [30]	United Fruit Co	Colon, R. P.
October 31	Orinoco	Hamburg-American Line	Port Limon, Costa Rica.
October 31	Toloa	United Fruit Co	Port Limon, Costa Rica.
November 1	Suriname	United Fruit Co	Puerto Colombia.
November 1	Santa Marta	United Fruit Co	New York via wayports.
November 1	Coppename	United Fruit Co	New Orleans, La.
November 2	Pellerin de la Touche	French Line	Havre via wayports.
November 2	Linda S. [31]	Surgeon Brothers	Bluefields, Nicaragua.
November 2	Granada	Standard Fruit & S. S. Co	New Orleans and wayports.
November 3	Orinoco	Hamburg-American Line	Hamburg via wayports.

[29] Schooner. [30] Motor boat. [31] Motor schooner.

PORT OF BALBOA.

* ARRIVALS.

Date.	Vessel.	Line.	From—
October 29	Craftsman [32]	R. J. McArdle Contracting Co	Buenaventura, Colombia.
October 29	Cricamola [33]	Chiriqui Land Co	Pto. Armuelles, R. P.
October 31	Dos Hermanos [34]	A. Valdez	Bayano River, R. P.
October 31	A. B. de Obarrio [34]	Pacific Fruit Co	Bayano River, R. P.
October 31	Nueva Alianza [34]	H. Elliot	El Real, R. P.
November 1	Tejon	General Petroleum Corp	San Francisco, Calif.

* DEPARTURES.

Date.	Vessel.	Line.	For—
October 29	Cricamola [33]	Chiriqui Land Co	Pto. Armuelles, R. P.
October 30	Craftsman [32]	R. J. McArdle Contracting Co	Buenaventura, Colombia.
October 31	Dos Hermanos [34]	A. Valdez	Bayano River, R. P.
October 31	A. B. de Obarrio [34]	Pacific Fruit Co	Bayano River, R. P.
October 31	Nueva Alianza [34]	H. Elliot	El Real, R. P.
November 2	Tejon	General Petroleum Corp	Los Angeles, Calif.
November 2	San Luis [34]	Chiriqui Land Co	Pto. Armuelles, R. P.

[32] Tug. [33] Motor yacht. [34] Motor schooner. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

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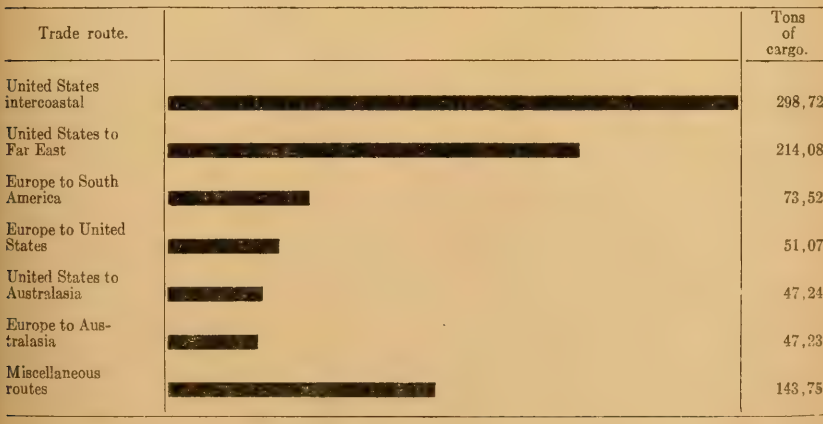
Cargo Tonnage from Atlantic to Pacific in October Establishes New Record.

During the month of October, 1928, 875,641 long tons of cargo passed through the Canal from the Atlantic to the Pacific, establishing a new high record for cargo tonnage in this direction. The previous high mark for Pacific-bound cargo occurred in March, 1926, when 837,806 tons passed through. October, 1928, and March, 1926, are the only two months since the opening of the Canal that cargo tonnage from the Atlantic to the Pacific has exceeded the 800,000-ton mark. Increased tonnage in the United States intercoastal and the east coast United States to Far East trades has been the chief reason for the heavy Pacific-bound shipping in the past month, the tonnage in each of these trades having increased more than 62,000 tons over the monthly average of the two respective trades for the first 9 months of the current calendar year.

The following graph gives the principal trades contributing to the October, 1928, tonnage, from the Atlantic to the Pacific:



Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 10, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Finn [2]	3	18.40	4	6.10	4	12.58	4	19.18	Swedish	Colombian Mari. Co.	271 0	41 0	12 0	New York, N. Y.	Buenaventura, Col.	General	131	2,472	1,513
Sagadahoc	4	3.40	4	6.15	4	13.27	4	14.45	American	Argonaut S. S. Co	420 5	54 2	24 9	Baltimore, Md	Tacoma, Wash.	Steel, general	7,291	7,340	5,342
Maliko	4	2.12	4	9.05	4	15.13	4	16.20	American	Amer.-Hawaiian Line	415 0	53 7	20 9	Boston, Mass	Portland, Oreg	General	3,689	7,072	4,944
Nevada	4	2.23	4	10.25	4	16.54	4	21.00	French	French Line	420 0	56 0	22 8	Havre, France	Vancouver, B. C.	General	2,500	7,500	5,196
Evanger	4	16.40	4	17.10	5	9.42	5	16.00	Norwegian	General S. S. Corp	365 0	52 3	15 6	Buenos Aires, Arg	Los Angeles, Calif	Coffee, guano, etc.	1,438	5,746	4,092
San Jose	5	4.40	5	6.25	5	13.45	5	16.00	American	United Fruit Co	330 0	44 6	19 0	Port Limon, C. R.	San Francisco, Cal.	Bananas, general	761	3,670	2,353
Innerton	5	6.40	5	7.30	5	15.18	5	16.50	British	R. Chapman & Son	400 0	52 0	16 0	Trieste, Italy	Vancouver, B. C.	Ballast		5,740	4,087
Greylock	5	9.15	5	9.25	5	16.57	5	18.15	American	Isthmian S. S. Lines	430 7	54 3	27 0	Baltimore, Md	Vancouver, B. C.	Steel, general	8,304	7,946	5,698
Levernbank [2]	5	16.50	5	18.15	6	9.09	6	12.04	British	Bank Line, Ltd	419 0	53 0	23 0	New York, N. Y.	Hongkong, China	General	7,009	7,093	5,021
Arana	5	12.36	6	6.10	6	13.35	6	14.49	British	Pacific Steam Nav. Co	303 0	43 0	12 7	New York, N. Y.	Callao, Peru	General	2,036½	2,851	1,776
Tulsa [3]			6	5.35	6	11.10			American	U. S. Navy	241 0	44 0		Gatun Lake, C. Z.	Balboa, C. Z				
Charlton Hall	5	18.50	6	6.10	6	14.36	6	15.58	American	U. S. Steel Products Co.	400 0	50 0	26 8	New York, N. Y.	San Antonio, Chile	General, steel	6,141	5,774	4,175
Edward Luckenbach	6	8.18	6	8.40	6	15.07	6	16.07	American	Luckenbach Line	436 0	57 0	21 0	New Orleans, La	Tacoma, Wash	General	3,537	8,543	6,427
Leeds City	6	9.40	6	9.55	6	17.21	6	22.38	British	Texas S. S. Co	400 0	54 3	24 0	Port Arthur, Texas	Dairen, China	Kerosene, gasoline	7,700	6,997	5,401
Demeterton	6	11.30	6	11.40	6	18.05	6	19.35	British	R. Chapman & Son	397 0	54 0	16 0	Pto. Ferrajo, Italy	Vancouver, B. C.	Ballast		5,707	4,212
Buenaventura	6	19.20	6	12.07	6	19.00	6	20.30	American	Panama R.R.S.S. Line	251 0	43 0	20 8	New York, N. Y.	Guayaquil, Ecuador	General	1,857	2,873	1,776
Kako Maru	6	9.20	6	12.19	6	19.53	6	21.30	Japanese	Nippon Yusen Kaisha	405 0	53 0	26 9	Baltimore, Md	Kobe, Japan	General	5,989	7,025	5,055
Alfonso Perez	6	12.10	6	14.30	6	21.55	7	1.00	Spanish	Angel F. Perez	410 6	54 0	15 0	Lisbon, Portugal	Vancouver, B. C.	Ballast		6,229	4,512
Silverbelle [2]	6	17.45	6	17.55	7	12.30	7	13.56	British	Kerr S. S. Co	425 6	58 3	21 3	New York, N. Y.	Singapore	General	4,538	8,218	6,037
Dansborg	6	15.50	6	19.12	7	13.12	7	15.00	Danish	C. K. Hansen	369 0	51 0	22 0	New York, N. Y.	Iloilo, Philippines	General	5,450	5,757	4,268
Steel Trader	6	19.40	7	6.12	7	14.34	7	16.05	American	U. S. Steel Products Co.	442 0	56 0	26 0	Mobile, Ala	Osaka, Japan	(5)	7,847	7,611	5,450
Petricola [4]	6	20.10	7	6.20	7	13.59	7	15.15	British	Shell Oil Co	412 0	53 0	21 10	London, England	Los Angeles, Calif	Ballast		6,319	4,373
Pacific Redwood	6	23.50	7	7.55	7	14.58	7	18.45	American	Dimon S. S. Corp	409 0	54 0	17 10	Norfolk, Va.	Los Angeles, Calif	General	4,412	6,537	4,841
Paul Luckenbach	7	3.45	7	8.05	7	15.40	7	16.45	American	Luckenbach Line	471 0	59 6	23 0	Boston, Mass	Seattle, Wash	General	6,717	9,027	6,539
Castor [4]	7	6.18	7	10.50	7	18.05	7	19.29	Swedish	Malmros	482 0	61 8	18 6	Southampton, Eng.	Los Angeles, Calif	Ballast		8,960	6,295
Santa Tecla	7	4.00	7	12.10	7	20.25	8	2.44	American	N. O. & S. A. S. S. Co	298 6	40 0	20 5	New Orleans, La	Talcahuano, Chile	General	2,646	2,832	1,803
Carperby	7	9.45	7	12.10	7	18.56	7	20.00	British	Sir. R. Ropner & Co	405 0	53 5	15 6	Wilmington, Del.	Vancouver, B. C.	Ballast		5,875	4,269
Forthbridge	7	11.50	7	13.35	7	21.00	7	22.35	British	Seaboard Sales Corp	390 0	55 0	18 0	Boston, Mass	Vancouver, B. C.	Ballast		6,246	4,627
Garuboa [4]			7		7	12.57			American	San Blas Develop't Co				Cristobal, C. Z	Gatun, C. Z	Ballast		12	12
C. O. Stillman [1 2]	7	14.53	7	15.05	8	9.28	8	10.47	British	International Pet. Co.	565.0	75.0	27.0	New York, N. Y.	Los Angeles, Calif	Ballast		16,780	9,885
Eemdijk	6	18.30	8	6.10	8	13.30	8	14.55	Dutch	Holland-American Line	469.7	58 5	19 6	Rotterdam, Holland	Portland, Oreg	General, bananas	1,691	8,514	6,066
Simon Von Utrecht	7	14.51	8	6.25	8	14.41	8	16.15	German	G. T. H. Siemers	407.0	54.0	25.0	New York, N. Y.	Gensan, China	Case oil	7,000	6,636	4,888
Mexican	7	17.55	8	7.20	8	15.09	8	16.15	American	Amer.-Hawaiian Line	472.3	57.2	21.0	Boston, Mass	Tacoma, Wash	General	4,023	9,258	6,944
W. L. Steed [1]	7	18.15	8	7.25	8	15.41	8	16.35	American	Huasteca Pet. Co	416.8	56.1	21.0	Providence, R. I.	Los Angeles, Calif	Ballast		6,751	4,795

[1] Tanker. [2] Motor ship. [3] Gunboat. [4] Launch. [5] Pig iron, steel, and cotton.

Fairfield City	7	18.40	8	8.25	8	16.07	8	17.10	American	U.S. Steel Products Co.	424.2	56.2	25.0	New York, N. Y.	Manila, Philippines	General	8,044	7,611	5,450
Sir Osborn Holmden [1 2]	7	20.15	8	9.45	8	16.30	8	19.35	Norwegian	Anglo-Saxon Pet. Co.	471.8	64.0	18.0	Hamburg,Germany	Los Angeles, Calif.	Ballast		9,562	6,604
Willbabco	8	00.38	8	9.50	8	16.59	8	18.30	American	Williams S. S. Line	468.2	58.0	24.2	Baltimore, Md.	Seattle, Wash	General, slag	7,390	8,460	6,162
Canadian Cruiser	8	7.25	8	10.25	8	17.39	9	3.30	British	Can. Nat. Steamers	430.0	55.0	17.6	Montreal, Canada	Melbourne,Aust'lia	General	2,240	7,680	5,518
Sommerstad [1 2]	8	9.05	8	11.20	8	17.53	9	12.35	Norwegian	Caucasian Oil Co.	381.0	55.0	17.3	London, England	Los Angeles, Calif	Ballast		5,994	3,876
Nebraska	8	5.45	8	12.00	8	18.43	8	20.04	British	Royal Mail S. P. Co.	450.0	58.0	19.11	Rotterdam,Holland	Vancouver, B. C	General	2,172	8,878	6,588
Murla	7	14.25	8	13.50	8	20.17	8	23.03	German	Roland Line	450.0	58.0	19.4	Hamburg,Germany	San Antonio, Chile.	General	2,077	7,756	5,378
Cellina [2]	8	2.20	8	14.15	8	21.18	8	23.00	Italian	Nav. Libera-Triestina.	430.0	55.3	18.8	Trieste, Italy	Vancouver, B. C.	General	1,247	7,790	6,054
Nollington Court	8	14.20	8	14.55	8	21.45	9	1.25	British	Continental Grain Co.	399.0	53.0	13.0	Barry, England	Vancouver, B. C.	Ballast		6,213	4,382
Cubore [2]	8	16.40	8	20.15	9	11.36	9	12.35	American	Calmar S. S. Co.	450.7	57.0	29.0	Baltimore, Md.	Seattle, Wash	Steel, general.	11,234	7,956	4,866
Essequibo	8	15.25	9	6.15	9	13.30	9	14.15	British	Pacific Steam Nav. Co	450.0	58.7	25.6	New York, N. Y.	Talcahuano, Chile	General	3,500	9,158	6,176
Oropesa	8	16.15	9	6.07	9	14.12	9	15.15	British	Pacific Steam Nav. Co.	530.0	66.0	24.10	Liverpool, England.	Talcahuano, Chile.	General	4,223	14,827	10,630
Cerigo	10-31	23.15	9	7.08	9	15.41	9	16.50	German	Hamburg-AmericanLine	227.0	34.0	14.10	Cristobal, C. Z	Guayaquil,Ecuador	General	668	1,572	1,011
Holland Maru	11	8 18.20	9	7.08	9	15.13	9	16.50	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	25.0	Norfolk, Va.	Yokohama, Japan	(7)	6,016	5,926	4,434
Eleanor Christenson	8	20.52	9	8.15	9	16.23	9	17.40	American	Christenson S. S. Co.	410.5	54.3	17.5	Baltimore, Md.	Portland, Oreg.	General	2,385	6,572	4,788
Sarico	9	10.35	9	10.50	9	18.31	9	22.55	American	Transmarine Lines	324.0	46.2	22.3	Pensacola, Fla.	Seattle, Wash	(8)	2,890	3,984	2,628
Ethan Allen	9	12.55	9	13.20	9	20.15	10	3.50	American	American Pioneer Line	455.0	60.0	25.0	Galveston, Texas	Manila,Philippines	Cotton, general.	6,554	8,978	6,525
Singapore Maru	9	16.45	9	16.55	10	9.11	10	13.00	Japanese	Kokusai Kisen Kaisha.	385.0	51.0	27.0	New York, N. Y.	Kobe, Japan	(9)	6,453	5,914	4,426
Baralt	8	21.00	10	6.10	10	13.28	10	14.25	Dutch	Royal Neth. S. S. Co.	200.0	33.0	11.9	Cristobal, C. Z	Tumaco, Colombia.	General	118	1,183	742
Cleveland [6]	9	8.35	10	6.10					American	U. S. Navy	292.0	44.0	17.6	High seas	Gamboa, C. Z.				
West Katan	9	6.10	10	6.05	10	13.10	10	14.25	American	Calif. & East'n S.S. Co.	410.5	54.3	19.5	Philadelphia, Pa.	Seattle, Wash	General	2,791	6,573	4,916
Magdala	9	18.55	10	7.15	10	14.30	10	15.50	British	DuPont & Co.	409.0	52.0	19.0	New York, N. Y.	Talcahuano, Chile	Motor car parts	1,550	5,486	4,050
Cities Service Empire [1]	9	20.00	10	7.15	10	14.59	10	16.35	American	Cities Service Trans.Co.	464.7	60.2	16.2	New York, N. Y.	Los Angeles, Calif	Ballast		8,561	5,997
Mongolia	10	8.00	10	8.45	10	15.38	10	23.50	American	Panama-Pacific Line	600.0	65.3	27.10	New York, N. Y.	San Francisco, Cal.	General	2,561	17,041	11,426
Buenos Aires [2]	9	23.05	10	8.45	10	16.23	10	23.12	Swedish	Johnson Line	427.0	56.0	24.0	Gothenburg,Swed'n	Honolulu, T. H	General	7,708	7,591	5,661
El Grillo [1]	10	3.32	10	10.18	10	17.09	10	18.11	British	Imperial Oil Co.	440.0	58.0	22.0	Levia, Canada	Los Angeles, Calif	Ballast		7,468	5,042
Hamburg Maru	10	5.40	10	10.50	10	18.11	10	19.29	Japanese	Osaka Shosen Kaisha	400.0	54.0	19.10	Houston, Texas	Shanghai, China	Cotton, tobacco	4,262	6,094	4,301
Persephone [1 2]	10	11.59	10	12.10	10	19.45	11	1.35	Danzig	Baltic-Amer. Pet. Co.	469.7	63.0	21.6	Hamburg,Germany	Talara, Peru	Ballast		9,336	6,338
Havel [2]	10	10.05	10	13.20	10	20.26	11	2.10	German	North German Lloyd	469.2	61.0	21.6	Bremen, Germany	Portland, Oreg.	(10)	4,282		
Salvador	10-27	16.35	10	14.15	10	21.01	10	22.09	British	Pacific Steam Nav. Co.	215.0	33.5	17.5	Cristobal, C. Z	Champerico, Guat	General	1,141	1,170	735

[1] Tanker. [6] Cruiser. [7] Scrap iron, cotton, tobacco, and rosin. [8] Pipe, pig iron, and rosin. [9] Cotton, scrap iron, and general. [10] Iron, glass, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Julia Luckenbach	4	2.30	4	7.05	4	13.55	4	13.55	American	Luckenbach Line	436.6	59.2	30.0	Seattle, Wash	Philadelphia, Pa.	Lumber, general.	8,561	8,543	6,402
Royalstar	4	2.50	4	7.32	4	15.34	4	22.50	British	Blue Star Line	450.0	58.6	23.0	Vancouver, B. C.	Hull, England	Frozen, general.	4,741	8,561	5,815
East Lynn [2]	4	6.30	4	8.28	4	15.30	4	15.30	British	Sir W. R. Smith & Sons	401.1	54.3	25.3	Tacoma, Wash	Liverpool, England	(11)	7,578	6,784	5,107
Santa Barbara [2]	4	12.02	5	6.06	5	13.25	5	16.00	American	Grace Line	466.0	64.0	25.6	Talcahuano, Chile	New York, N. Y.	General	5,850		
Taketoyo Maru	4	17.45	5	6.44	5	14.25	5	22.20	Japanese	Nippon Yusen Kaisha	445.0	58.0	25.6	Manila, Philippines	Boston, Mass.	General	7,231	7,972	5,687
Garrion Tower	4	20.00	5	7.28	5	14.55	5	14.55	British	Sheriff & Brownlie	386.7	47.7	24.9	Tocopilla, Chile	Europe	Nitrates	6,200		
J. R. Gordon	5	4.30	5	8.08	5	15.45	5	15.45	American	Union Sulphur Co.	409.8	54.2	24.0	Tacoma, Wash	Poughkeepsie, N.Y.	Lumber	5,565	6,581	4,784
Steel Engineer	5	6.25	5	8.52	5	16.00	5	16.00	American	Isthmian S. S. Lines	424.8	56.2	25.6	Seattle, Wash	Philadelphia, Pa.	(12)	7,194	7,611	5,450
Liverpool Maru	5	8.45	5	10.05	5	17.30	5	18.53	Japanese	Kokusai Kisen Kaisha.	385.0	51.0	26.2	Portland, Oreg	Barcelona, Spain	Bulk wheat	7,572	5,919	4,400

[1] Tanker. [11] Canned fruits, grain, and general. [12] Lumber and wood pulp.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Altuna Mendi	5	8 25	5	11.09	5	18.40	5	19 10	Spanish	Sota & Azaur	400 5	53 4	28 3	Iquique, Chile	Azores [16]	Nitrates	8,800	6,282	4,547
Volumnia	5	14.30	5	15.39	5	23 25	6	00 55	British	DuPont de Nemours	423 0	56 0	24 6	Tocopilla, Chile	Baltimore, Md	Nitrates	8,600	6,229	4,524
Ana Luisa [14]			5		5				Panaman	Luis Durati				Balboa, C. Z	Gatun Lake, C. Z.				
California	5	11 00	6	7.09	6	13.35	6	14.30	American	Panama-Pacific Line	574 4	80 3	31 0	San Francisco, Cal	New York, N. Y	([17])	9,245	24,504	17,565
Uribe	6	10 35	6	11.04	6	18 35			Colombian	Estrada G. Hermanos	227 4	31 7	14 9	Buenaventura, Col	Cristobal, C. Z	([18])	888	1,154	663
Iowan	6	10 55	6	11.30	6	18 49	6	20 15	American	Amer.-Hawaiian Line	407 7	53 7	27 1	Seattle, Wash	Boston, Mass	General	8,769	7,079	5,450
Selma City	6	6 45	6	12.28	6	19.30	6	19 30	American	isthmian S. S. Lines	424 2	56 2	27 0	N. Westminster	Avonmouth, Eng	General	7,101	7,611	5,450
O-8 [14]			6	13.11	6	21.05			American	U. S. Navy	175 0	16 4		Balboa, C. Z	Cristobal, C. Z				
Franklin K. Lane [1]	6	17.16	7	6.04	7	13.40	7	13 40	American	Huasteca Petroleum Co.	435 0	56 2	26 0	Los Angeles, Calif	Baltimore, Md	Gasoline	9,691	7,405	5,131
Larry Doheny [1]	7	00.55	7	6.36	7	14 55	7	14 55	American	Richfield Oil Co	430 0	59 2	26 4	Los Angeles, Calif	New York, N. Y	Gasoline	10,500	7,497	5,181
K. R. Kingsbury [1]	7	6.00	7	7 07	7	16 10	7	17.00	American	Standard Oil Co. of Cal	440 0	58 2	26 6	Los Angeles, Calif	Baltimore, Md	Gasoline	9,800	9,032	5,938
Robert Luckenbach	6	21 00	7	7.46	7	17 25	7	17 25	American	Luckenbach Line	445 0	58 0	26 0	Portland, Oreg	Boston, Mass	General	7,892	8,695	6,375
Yorkmar	7	1.00	7	8.14	7	18 30	7	21 00	American	Calmar S. S. Corp	409 8	54 2	26.0	Aberdeen, Wash	New York, N. Y	Lumber	5,387	6,757	4,919
Ucayali	7	5.10	7	7.41	7	19.15	12	10.23	Peruvian	Peruvian Line	374 7	46.3	21.0	Callao, Peru	Cristobal, C. Z	General	2,043	4,466	2,405
Westmoorland	6	19.30	7	9.30	7	19.45	7	19.45	British	Federal Steam Nav. Co	473 0	60.1	25 7	Auckland, N. Z.	London, England	Frozen, general	6,508	10,423	7,456
Benvenue	7	9 55	7	10.30	7	20.25	7	21.45	British	Ben Line Steamers, Ltd.	429.0	54.0	25.8	Vancouver, B. C.	Rotterdam, Holland	Wheat	8,080		
Narenta	7	11.10	7	11.54	7	21.42	8	4.50	British	Royal Mail S. P. Co	450 2	58.3	26 0	Vancouver, B. C.	Rotterdam, Holland	([19])	6,213	8,856	6,559
Palm Branch	7	15.10	7	15.45	7	22 35	7	22 35	British	F. & W. Ritson	360 0	45.0	23.9	Magellanes, Chile	Liverpool, England	General	5,087	4,195	3,088
Winifred O'Donnell [1]	7	15.40	7	16 41	8	11.25	8	13 25	American	The Texas Co	435 0	56.0	28 0	Los Angeles, Calif	Baltimore, Md	Gas oil	9,676	7,425	5,222
Erfurt [15]	7	14.00	8	6.14	8	14.30	8	14.30	German	Roland Line	360.7	51.0	14 0	Champerico, Guat	New Orleans, La	Ballast		5,038	3,533
Helen Olmsted [1]	7	23 00	8	6.46	8	15.45	8	15.45	American	The Texas Co	425 8	57 0	26 0	Los Angeles, Calif	Philadelphia, Pa	Gasoline	9,116	7,484	5,216
Acajutla	7	16.50	8	7 02	8	18 00			British	Pacific Steam Nav. Co	215 7	33 5	13 0	Champerico, Guat	Cristobal, C. Z	General	187	1,273	706
Cauca [15]	7	21.55	8	6.59	8	18 05			Colombian	National Navigation Co.	107 2	22 9	10 0	Buenaventura, Col	Cristobal, C. Z	Coffee, hides	258	238	163
Kina	7	19 15	8	8 15	8	18 48	8	20 58	Danish	Knut Knutson	385 0	53 3	26 4	Corral, Chile	Copenhagen, Den.	General	7,732	6,090	4,623
Seekonk [15]	8	2.30	8	8 40	8	19 10	8	19.10	American	Williams S. S. Line	390 0	54 2	26 6	Alberni, B. C	Boston, Mass	([20])	6,930	6,162	4,417
Alaska	8	6.30	8	8 58	8	20 05	9	16.30	French	French Line	425 0	55 0	25 6	Vancouver, B. C.	Antwerp, Belgium	Lumber, general	7,215	6,990	4,854
Parthenia	8	7.25	8	9.28	8	20 50	9	4 42	British	Donaldson Bros., Ltd	403 0	51 9	25 6	Vancouver, B. C.	Glasgow, Scotland	General	6,270	5,831	4,341
Limon	8	8.10	8	9.58	8	20 55	9	1 25	American	United Fruit Co	330 6	44 5	20 0	San Francisco, Cal	Port Limon, C. Z.	General	993	3,675	2,229
Baralt	8	8 20	8	10.09	8	21 00	10	6 10	Dutch	Royal Neth. S. S. Co.	202 9	33 1	12 0	Guayaquil, Ecuador	Cristobal, C. Z	General	215	1,183	742
Woensdrecht [15]	7	18.00	8	10 44	8	21 20	8	22.40	Dutch	Ommeren Shipping Co	370 0	53 3	21 8	Los Angeles, Calif	Rouen, France	Gasoline	6,108	4,691	3,067
Alaskan	8	11 00	8	11.44	8	21 50	8	21.50	American	Amer.-Hawaiian Line	415.0	53.7	26.0	Tacoma, Wash	Boston, Mass	General	6,350	7,380	5,339
George W. Barnes [1]	8	21.15	9	6.01	9	13.30	9	13 30	American	Huasteca Petroleum Co.	416 8	56 1	27 0	Los Angeles, Calif	Baltimore, Md	Gasoline	9,100	6,763	4,759
Hermion	8	20.30	9	6.35	9	15 00	10	23 35	Norwegian	Bruusgaard Kiosterud	389 0	54 0	26 0	Vancouver, B. C.	Rotterdam, Holland	General	6,991	5,746	4,232
Jupiter	8	21 30	9	7.20	9	15.30	9	17 10	Spanish	Maritima Union	389.0	52 1	23 2	Antofagasta, Chile	Azores [16]	Nitrates	7,050		

[1] Tanker. [14] Launch. [15] Submarine. [16] Motor ship. [16] For orders. [17] Canned goods and general. [18] Coffee, hides, and gold. [19] Fruit, lead, zinc, and general. [20] Lumber and canned goods.

Guayaquil	8	22	00	9	8	24	9	16	40	10	15	15	American	Panama R. R. S. S. Line	251.0	43.6	20.0	Guayaquil, Ecud'r.	New York, N. Y.	General	1,618	2,874	1,944
Chetopa	9	5	00	9	8	40	9	16	40	9	16	40	American	Charles Nelson & Co	324.0	46.2	25.0	Everett, Wash	Baltimore, Md.	General	4,044	3,984	2,628
Fernhill [13]	9	2	00	9	9	02	9	16	55	9	17	55	Norwegian	Fearnley & Eger	377.6	54.0	26.0	Kohsichang, Siam	Habana, Cuba	Rice	7,125	6,081	4,538
Beldis	9	7	00	9	12	15	9	19	15	9	19	15	Norwegian	Christen Smith	294.1	48.3	18.0	Pisagua, Chile	Granville, France	Nitrates	3,024	2,715	1,678
Willwello	9	13	30	9	14	02	9	21	35	9	21	35	American	Williams S. S. Line	410.0	54.2	27.0	Everett, Wash	New York, N. Y.	Lumber, general	7,374	6,821	4,927
Annam [14]	9	13	50	9	14	31	9	23	00	10	2	00	Danish	East Asiatic Co	410.0	55.2	28.8	Vancouver, B. C.	Copenhagen, Den.	([23])	9,491	7,067	5,280
Silverpine [15]	9	17	15	9	17	54	10	12	20	10	12	20	British	Kerr S. S. Co	440.0	55.3	23.0	Manila, Philippines	New Orleans, La.	General	6,547	7,473	5,644
Duchessa D'Acsta	9	17	55	10	6	10	10	14	00	10	14	00	Italian	Nav. Libera-Triestina	450.0	57.0	27.0	Vancouver, B. C.	Malta, Medit. Sea	General	8,593	8 011	5,552
Dusan Silni	10	4	10	10	7	14	10	15	25	10	18	40	Yugoslav	Milan Stejkevic	421.0	55.1	25.6	Tocopilla, Chile	Azores [16]	Nitrates	8,264	6,429	4,379
Peter Kerr	10	10	20	10	10	55	10	18	25	10	18	25	American	Arrow Line	415.0	55.7	26.6	Tacoma, Wash	Savannah, Ga.	([24])	8,750	7,704	5,707
Mayebashi Maru	10	11	40	10	12	17	10	19	15	11	00	10	Japanese	Nippon Yusen Kaisha	445.0	58.0	23.0	Manila, P. I.	Boston, Mass	General	9,284	8,012	5,749
Svealand [17]	10	12	00	10	16	12	11	13	55	11	13	55	Swedish	Ore S. S. Corp	561.3	72.2	33.6	Cruz Grande, Chile	New York, N. Y.	Iron ore	20,000	15,425	4,421
Osiris [18]	10	17	00	10	17	33	11	12	55	11	12	55	German	Hamburg-AmericanLine	376.2	51.8	25.0	Vancouver, B. C.	Hamburg,Germany	General	5,993	5,788	4,023
Cleveland [21]							10	17	00				American	U. S. Navy	292.0	44.0	17.6	Curaracha, C. Z.	Cristobal, C. Z.				
Almirante [22]				10	10	11	10						Panaman	Panaman Government	70 0	18.6		Balboa, C. Z	Gatun Lake, C. Z.				

[1] Tanker. [21] Cruiser. [22] Motor yacht. [23] Wheat, barley, and general. [24] Lumber, pulp, and copper.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
November 4	Toloa	United Fruit Co	Port Limon, Costa Rica.	November 4	Toloa	United Fruit Co	New York via Habana.
November 4	War Diwan	Anglo-Saxon Petroleum Co.	Curacao, D. W. I.	November 5	Cartago	United Fruit Co	NewOrleans and wayports.
November 5	Calamares	United Fruit Co	New York via Habana.	November 5	War Diwan	Anglo-Saxon Petroleum Co	Curacao, and Pto. Cortez.
November 5	Denderah	Hamburg-American Line	Bremen via wayports.	November 5	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
November 5	Nitonian	Leyland Line	Liverpool via wayports.	November 5	Mayeri	United Fruit Co	New York via Kingston.
November 6	Anachucuna [25]	United Fruit Co	Colon, R. P.	November 6	Denderah	Hamburg-American Line	NewOrleans and wayports.
November 6	Norma	United Fruit Co	Puerto Colombia.	November 7	Anachucuna [25]	United Fruit Co	Colon, R. P.
November 7	Maravi	United Fruit Co	New York via wayports.	November 7	Stuyvesant	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
November 7	Stuyvesant	Royal Netherlands S. S. Co	Hamburg via wayports.	November 7	Arigunni	Elders & Fyffes, Ltd	Avonmouth via wayports.
November 7	Arigunni	Elders & Fyffes, Ltd	Avonmouth via wayports.	November 7	Norma	United Fruit Co	Perme, R. P.
November 7	Metapan	United Fruit Co	New York via Kingston.	November 7	Calamares	United Fruit Co	Port Limon, Costa Rica.
November 7	Ancon	Panama R. R. S. S. Line	New York via Haiti.	November 7	Maravi	United Fruit Co	Puerto Colombia.
November 7	Gatun	Standard Fruit & S. S. Co	New Orleans, La.	November 8	Anachucuna [25]	United Fruit Co	Colon, R. P.
November 7	Saramacca	United Fruit Co	New Orleans, La.	November 8	Nitonian	Leyland Line	Port Limon, Costa Rica.
November 7	Anachucuna [25]	United Fruit Co	Colon, R. P.	November 8	Metapan	United Fruit Co	New York via Kingston.
November 8	Suriname	United Fruit Co	Bocas del Toro, R. P.	November 8	Saramacca	United Fruit Co	Port Limon via Bocas.
November 9	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	November 8	Suriname	United Fruit Co	New Orleans, La.
November 9	Stuyvesant	Royal Netherlands. S. S. Co.	Port Limon, Costa Rica.	November 9	Gatun	Standard Fruit & S. S. Co	NewOrleans and wayports.
November 10	Norma	United Fruit Co	Perme, R. P.	November 10	Stuyvesant	Royal Netherlands S. S. Co	Amsterdam via wayports.
November 10	Anachucuna [25]	United Fruit Co	Colon, R. P.	November 10	Anachucuna [25]	United Fruit Co	Colon, R. P.
November 10	Managui	United Fruit Co	Puerto Colombia.	November 10	Norma	United Fruit Co	Mobile, Ala.
November 10	Parismina	United Fruit Co	New Orleans via Habana.				

[25] Motor boat. * Other than ships passing through the Canal.

(Continued on page 212, column 2.)

Commercial Traffic Through the Panama Canal in October, 1928, by Trade Routes.

The following tabulations shows the commercial traffic through the Canal during the month of October, 1928, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for October, 1927 and 1926. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	81	418,076	322,512	518,621	322,399	$364,972.32	275,060
Europe to west coast of United States:							
British	11	50,266	39,747	64,013	38,258	36,780.67	6,160
Danish	1	5,669	5,223	6,919	5,223	6,541.25	7,206
Dutch	3	11,746	9,757	16,334	9,567	8,457.12	..
French	1	4,345	3,996	6,587	3,641	3,272.40	..
German	3	13,977	11,770	20,175	12,176	14,712.50	17,154
Norwegian	4	21,497	17,674	28,758	17,596	17,080.15	5,347
Swedish	1	5,337	2,861	5,210	3,747	3,576.25	4,312
United States	4	20,231	16,006	26,626	16,236	15,282.24	6,567
Totals	28	138,259	107,044	174,622	106,444	105,702.58	46,746
Europe to west coast Canada:							
British	21	104,556	75,143	118,921	73,547	77,129.09	5,688
Dutch	2	14,695	10,323	16,709	10,309	12,903.75	7,380
French	2	10,027	7,230	11,608	7,256	9,037.50	6,257
Italian	1	5,863	4,397	7,061	4,460	5,496.25	2,197
Swedish	2	9,905	7,357	11,988	9,049	7,131.60	..
Totals	28	144,958	104,450	166,287	104,621	111,698.19	21,522
Europe to west coast South America:							
British	5	29,848	22,960	38,249	23,773	28,700.00	19,397
Danzig	1	6,127	5,268	8,939	5,007	4,411.44	..
Dutch	3	18,639	12,095	21,116	11,953	15,118.75	13,484
French	2	8,506	7,547	11,001	7,501	9,300.80	5,278
German	4	19,917	13,692	21,905	13,452	17,115.00	16,962
Greek	3	11,326	8,040	12,912	7,977	8,154.72	..
Italian	1	6,236	4,699	8,298	5,106	5,873.75	1,365
Norwegian	2	7,167	5,460	7,930	4,642	6,825.00	12,058
Spanish	3	11,481	9,464	15,352	9,593	9,269.89	153
Yugoslav	1	4,722	3,412	5,341	3,418	4,265.00	6,849
Totals	25	123,969	92,637	151,043	92,422	109,034.35	75,546
East coast of United States to Far East:							
British	4	20,701	14,054	22,745	14,101	17,567.50	26,098
Danish	3	9,543	7,763	11,606	7,115	9,703.75	13,037
German	1	4,885	2,968	4,974	2,958	3,710.00	7,600
Japanese	7	34,152	29,834	43,566	29,295	36,947.60	39,592
Norwegian	5	21,497	12,701	21,412	12,743	15,876.25	28,788
United States	6	30,446	21,814	33,867	21,661	27,267.50	44,032
Totals	26	121,224	89,134	138,170	87,873	111,072.60	159,147
East coast of United States to west coast of South America:							
British	3	11,375	8,941	15,758	9,571	9,980.97	5,408
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	2,571
German	1	909	689	1,314	681	861.25	350
Peruvian	[1]2	..	..	..	..	[1]500.00	..
Swedish	2	8,917	7,486	30,676	8,762	6,420.24	..
United States	16	58,381	49,756	86,181	49,403	47,658.54	15,255
Totals	25	84,254	70,305	141,239	72,393	69,712.25	23,584

[1] Naval vessels.

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Cristobal, C. Z., to west coast of South America:							
Colombian	5	1,388	1,328	2,127	1,335	$1,641.50	2,076
Dutch	1	742	294	780	323	367.50	130
German	5	4,532	2,777	5,500	2,890	3,471.25	1,036
Peruvian	1	2,959	1,515	4,617	2,427	1,893.75	356
Totals	12	9,621	5,914	13,024	6,975	7,374.00	3,598
East coast of United States to Australasia:							
British	7	36,239	28,076	40,774	25,633	35,095.00	33,676
Swedish	1	3,972	2,711	4,439	3,380	3,388.75	3,481
United States	2	5,406	5,000	6,916	4,973	6,126.91	5,116
Totals	10	45,617	35,787	52,129	33,986	44,610.66	42,273
Europe to Australasia:							
British	6	49,569	35,237	57,767	35,632	44,046.25	41,112
French	1	5,629	4,343	7,007	4,402	5,428.75	2,020
Norwegian	1	2,299	1,881	3,214	1,869	2,351.25	4,103
Totals	8	57,497	41,461	67,988	41,903	51,826.25	47,235
East coast of United States to west coast Canada:							
Danish	1	4,559	3,577	5,905	3,637	3,282.48	
United States	5	22,838	17,943	28,534	17,897	22,428.75	33,003
Totals	6	27,397	21,520	34,439	21,534	25,711.23	33,003
East coast Central America to west coast of United States:							
United States	6	16,310	14,595	23,439	14,436	16,574.93	3,397
East coast of United States to Philippine Islands:							
British	2	12,282	6,861	12,036	6,750	8,576.25	11,700
United States	3	19,014	16,503	22,524	14,349	20,628.75	23,264
Totals	5	31,296	23,364	34,560	21,099	29,205.00	34,964
East coast of Canada to Australia:							
British	5	21,867	17,201	28,061	17,270	21,501.25	16,736
Cristobal, C. Z., to west coast of Central America:							
British	2	1,441	1,286	2,298	1,304	1,607.50	2,291
Costa Rican	1	39	39	78	39	29.25	
Norwegian	2	1,110	908	1,587	873	1,135.00	2,321
Totals	5	2,590	2,233	3,963	2,216	2,771.75	4,612
Around the world:							
United States	3	21,885	15,835	26,521	15,769	19,793.75	13,656
East coast of South America to west coast Canada:							
Norwegian	1	4,723	2,728	4,624	2,765	3,410.00	2,482
United States	2	10,079	7,059	11,118	7,058	8,823.75	3,791
Totals	3	14,802	9,787	15,742	9,823	12,233.75	6,274
Cristobal, C. Z., to west coast of United States:							
Panaman	1	2,603	1,383	2,461	1,384	1,728.75	2,494
United States	2	6,692	5,430	9,046	5,521	5,161.71	2,004
Totals	3	9,295	6,813	11,507	6,905	6,890.46	4,498
Europe to west coast Central America:							
German	2	7,041	4,748	8,325	4,788	5,935.00	8,759
Norwegian	1	1,678	1,310	2,406	1,284	1,637.50	672
Totals	3	8,719	6,058	10,731	6,072	7,572.50	9,431
Foreign ships in ballast, U. S. intercoastal:							
British	2	10,329	7,238	11,628	6,952	7,195.33	7,770
East coast of Central America to Australasia:							
British	2	9,101	5,850	9,655	5,841	7,312.50	12,787

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
South American intercoastal:							
Danzig	1	6,674	4,427	7,299	4,230	$4,805.28	.....
Peruvian	1	2,405	989	3,305	1,514	1,236.25	316
Totals	2	9,079	5,416	10,604	5,744	6,041.53	316
Cristobal, C. Z., to Gatun Lake, C. Z.:							
Panaman	1	54	51	86	50	38.88	.....
United States	1	478	417	2,026	417	344.16	.....
Totals	2	532	468	2,112	467	383.04	.....
Cristobal, C. Z., to Balboa, C. Z.:							
Panaman	1	124	113	207	100	141.25	317
United States	1	875	831	1,819	880	630.00	.....
Totals	2	999	944	2,026	980	771.25	317
West Indies to west coast of United States:							
British	[2] 1	.....	.....	.....	.....	[2] 2,767.00	.....
Dutch	1	3,657	3,158	5,304	3,043	3,947.50	7,124
Totals	2	3,657	3,158	5,304	3,043	6,714.50	7,124
Africa to west coast of Canada:							
British	2	8,515	6,990	11,311	6,988	6,130.80	.....
East coast of United States to west coast Central America:							
Norwegian	1	1,114	967	1,613	932	1,208.75	700
East coast of United States to Hawaiian Islands:							
United States	1	1,730	1,528	2,647	1,542	1,910.00	2,741
East coast of Canada to west coast United States:							
Danish	1	4,418	3,585	5,702	3,583	4,481.25	2,800
East coast Canada to west coast South America:							
British	1	4,186	3,322	5,465	3,400	4,152.50	2,500
East coast of Canada to Far East:							
British	1	6,303	4,075	6,382	4,104	5,093.75	6,939
East coast of South America to west coast United States:							
British	1	4,843	4,693	6,500	4,692	3,519.75	.....
East coast of South America to Far East:							
Japanese	1	7,292	5,924	9,446	5,919	7,405.00	3,514
West Indies to Balboa, C. Z.:							
Norwegian	1	3,612	3,201	5,311	3,005	4,001.25	6,922
Egypt to west coast of South America:							
Yugoslav	1	4,178	3,710	5,861	3,741	3,008.16	.....
Africa to west coast United States:							
British	1	4,164	3,198	5,219	3,209	2,998.08	.....
Grand totals, Oct., 1928	306	1,381,688	1,050,917	1,718,872	1,048,282	1,190,585.26	875,641
Grand totals, Oct., 1927	289	1,345,683	1,041,924	1,686,239	1,034,897	1,167,843.28	700,592
Grand totals, Oct., 1926	229	1,093,239	864,253	1,412,725	866,025	973,138.80	698,623

[2] Naval vessel.

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	71	374,705	287,581	462,880	287,346	$359,433.95	544,928
West coast of United States to Europe:							
British	17	74,624	55,575	89,886	55,444	69,468.75	131,678
Dutch	1	4,336	3,509	5,832	3,466	4,386.25	7,448
French	1	5,050	4,356	7,011	3,989	5,445.00	8,778
Japanese	1	4,611	4,223	5,838	4,219	5,278.75	7,852
Norwegian	4	19,168	14,846	23,940	14,827	18,557.50	31,544
Swedish	1	3,528	2,417	4,104	3,128	3,021.25	6,025
United States	2	10,844	7,476	11,877	7,338	9,345.00	16,162
Totals	27	122,161	92,402	148,488	92,411	115,502.50	209,487

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to Europe:							
Belgian	1	4,792	4,142	6,511	4,172	$5,177.50	8,160
British	9	47,805	37,455	60,938	37,657	46,818.75	66,614
Dutch	3	17,219	11,909	19,639	11,446	14,886.25	27,289
French	2	8,742	6,947	11,175	6,820	8,683.75	15,958
German	6	28,911	20,412	32,730	20,159	25,515.00	45,250
Greek	6	23,355	16,783	26,706	16,729	20,978.75	45,112
Italian	2	14,222	9,473	18,418	11,040	11,841.25	12,273
Norwegian	2	7,844	5,599	9,290	5,614	6,998.75	13,872
Peruvian	1	3,544	3,510	4,763	3,089	4,252.80	5,430
Spanish	1	2,827	2,459	4,349	2,565	3,073.75	597
Yugoslav	2	7,257	5,533	8,719	5,538	6,916.25	13,678
Totals	35	166,518	124,222	203,238	124,829	155,142.80	254,233
West coast of South America to east coast United States:							
British	6	29,545	23,852	42,129	25,236	29,815.00	46,569
Chilean	2	9,377	6,899	14,620	7,952	8,623.75	8,708
German	1	2,817	1,545	2,593	1,526	1,931.25	337
Norwegian	1	5,219	5,207	7,041	5,234	6,262.80	9,754
Peruvian	1	1,529	1,483	2,155	1,169	1,834.80	2,023
Swedish	2	8,917	7,486	30,676	8,762	9,357.50	42,500
United States	12	59,648	49,345	85,143	49,495	61,475.70	139,022
Totals	25	117,052	95,817	184,357	99,374	119,300.80	248,913
West coast Canada to Euorpe:							
British	16	79,388	58,698	94,884	58,993	73,372.50	117,911
Danish	1	5,338	4,223	6,650	4,247	5,278.75	9,218
Dutch	1	6,060	4,860	7,651	4,796	6,075.00	8,807
French	2	10,339	8,346	13,636	8,381	10,432.50	15,555
German	4	24,411	15,881	25,816	15,721	19,851.25	29,181
Italian	1	6,025	5,056	7,098	4,498	6,320.00	8,900
Japanese	1	5,059	5,018	6,710	4,800	6,070.80	8,557
Norwegian	1	5,637	4,509	7,116	4,493	5,636.25	8,901
United States	1	5,188	3,856	6,194	3,845	4,820.00	7,929
Totals	28	147,445	110,447	175,755	109,774	137,857.05	214,959
West coast of South America to Cristobal:							
Colombian	3	1,133	1,083	1,741	1,101	1,342.45	983
Dutch	1	742	294	780	323	367.50	264
German	6	5,543	3,283	6,580	3,412	4,103.75	3,403
Norwegian	1	504	423	732	391	362.88	.....
Panaman	1	124	113	207	109	141.25	233
Peruvian	1	2,959	1,515	4,617	2,427	1,893.75	2,003
Totals	13	11,005	6,711	14,657	7,763	8,211.58	6,886
West coast of Canada to east coast United States:							
British	4	17,110	11,480	18,503	11,394	14,350.00	27,166
United States	3	11,794	8,548	14,031	9,271	10,685.00	17,434
Totals	7	28,904	20,028	32,534	20,665	25,035.00	44,600
West coast United States to east coast of Central America:							
Norwegian	1	2,080	1,305	2,166	1,298	1,631.25	2,600
United States	5	13,957	12,510	20,130	12,367	15,594.05	11,048
Totals	6	16,037	13,815	22,296	13,665	17,225.30	13,648
West coast of Central America to Cristobal, C. Z.:							
British	2	1,441	1,286	2,298	1,304	1,607.50	312
Norwegian	2	1,720	1,452	2,468	1,414	1,408.33	325
United States	1	622	614	1,138	602	746.40	251
Totals	5	3,783	3,352	5,904	3,320	3,762.23	888
West coast of United States to West Indies:							
British	[1]3	9,172	7,714	13,182	[1]8,151	10,658.40	7,366
Norwegian	1	1,524	1,264	1,734	1,286	1,580.00	2,200
Totals	4	10,696	8,978	14,916	9,437	12,238.40	9,566

[1] Includes naval vessel of 5,300 displacement tons.

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West coast of United States to Cristobal, C. Z.:							
Panaman	1	2,603	1,383	3,644	2,594	$1,728.75	394
United States	2	6,692	5,430	9,046	5,521	6,787.50	10,884
Totals	3	9,295	6,813	12,690	8,115	8,516.25	11,278
West coast of South America to east coast Canada:							
British	2	12,688	10,999	18,512	11,227	13,748.75	25,265
Danzig	1	6,063	5,196	8,932	5,002	6,495.00	11,365
Totals	3	18,751	16,195	24,444	16,229	20,243.75	36,630
Canadian intercoastal:							
British	2	9,371	6,329	10,306	6,327	7,911.25	13,104
West coast of South America to Egypt:							
British	1	4,669	3,138	4,881	3,141	3,922.50	7,311
Yugoslav	1	3,954	2,685	4,307	2,661	3,356.25	7,156
Totals	2	8,623	5,823	9,188	5,802	7,278.75	14,467
Australasia to Europe:							
British	4	28,787	23,042	37,572	23,496	28,802.50	20,162
Australasia to east coast of United States:							
British	1	4,187	3,294	5,370	3,244	4,117.50	1,192
Australasia to east coast of Canada:							
British	2	8,620	6,552	10,792	6,594	8,190.00	3,969
Philippine Island to east coast of United States:							
United States	2	12,039	9,318	13,408	8,397	11,647.50	17,993
West coast of United States to east coast of South America:							
British	1	5,458	4,353	6,996	4,432	5,441.25	3,558
West coast United States to Egypt:							
British	1	4,778	4,347	7,403	4,277	5,433.75	9,100
West coast of South America to West Indies:							
United States	1	111	191	491	196	143.25	.....
Hawaiian Islands to east coast United States:							
United States	1	1,740	1,542	2,647	1,542	1,927.50	1,165
Hawaiian Islands to Europe:							
Swedish	1	5,533	3,430	5,554	4,225	4,287.50	7,184
Balboa, C. Z., to Gatun Lake:							
Panaman	1	67	67	67	67	80.40	.....
Balboa, C. Z., to Cristobal, C. Z.:							
Panaman	1	124	113	207	109	89.28	.....
Far East to east coast United States:							
Japanese	2	8,951	7,002	10,991	6,665	8,752.50	4,858
Far East to West Indies:							
Norwegian	1	4,284	2,507	4,333	2,494	3,133.75	7,648
Far East to Europe:							
Japanese	1	4,667	3,723	5,973	3,708	4,653.75	6,420
Grand totals, Oct., 1928	251	1,133,692	867,994	1,436,367	874,503	1,084,360.04	1,706,836
Grand totals, Oct., 1927	278	1,240,069	971,385	1,587,793	975,218	1,212,272.69	2,017,054
Grand totals, Oct., 1926	216	1,031,280	810,255	1,331,947	815,672	1,016,075.13	1,676,088

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season.
	Average.	Maximum.	Minimum.	Average temperature. Degrees F.
Cristobal (between docks 8 and 9)	1018	1020	1013	84.0
Balboa (dock 18)	1011	1021	1005	83.0

(NOTE—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

Traffic by Nationality for October, 1928.

The following tabulation shows the commercial traffic through the Canal during the month of October, 1928, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, with corresponding totals for October, 1927 and 1926:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
British	[1] 77	385,585	284,872	456,782	281,025	[1] $320,154.19	198,192
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	2,571
Colombian	5	1,388	1,328	2,127	1,335	1,641.50	2,076
Costa Rican	1	39	39	78	39	29.25	....
Danish	6	24,180	20,158	30,132	19,558	24,008.73	23,043
Danzig	2	12,801	9,695	16,238	9,237	9,216.72	....
Dutch	10	49,391	35,627	60,243	35,195	40,794.62	28,118
French	6	28,707	23,116	36,203	22,800	27,039.45	13,555
German	16	56,261	36,644	62,193	36,945	45,805.00	51,861
Greek	3	11,326	8,040	12,912	7,977	8,154.72	....
Italian	2	12,099	9,096	15,359	9,566	11,370.00	3,562
Japanese	8	41,444	35,758	53,012	35,214	44,352.60	43,106
Norwegian	18	64,697	46,830	76,855	45,709	53,525.15	63,393
Panaman	3	2,781	1,547	2,754	1,534	1,908.88	2,811
Peruvian	[2] 4	5,364	2,504	7,922	3,941	[2] 3,630.00	672
Spanish	3	11,481	9,464	15,352	9,593	9,269.89	153
Swedish	6	28,131	20,415	52,313	24,938	20,516.84	7,793
United States	133	632,441	495,229	799,885	492,541	557,603.31	427,886
Yugoslav	2	8,900	7,122	11,202	7,159	7,273.16	6,849
Totals, October, 1928	306	1,381,688	1,050,917	1,718,872	1,048,282	1,190,585.26	875,641
Totals, October, 1927	289	1,345,683	1,041,924	1,686,239	1,034,897	1,167,843.28	700,592
Totals, October, 1926	229	1,093,239	864,253	1,412,725	866,025	973,138.80	698,623

[1] British cruiser of 5,534 displacement tons paying tolls of $2,767 included in number of ships and tolls collected; tonnage not included.

[2] Two Peruvian submarines having a total displacement tonnage of 1,000 tons, paying tolls of $500 included in number of ships and tolls collected; tonnage not included.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	4,792	4,142	6,511	4,172	$5,177.50	8,160
British	[1] 71	337,543	258,114	423,652	260,917	[1] 323,658.40	481,277
Chilean	2	9,377	6,899	14,620	7,952	8,623.75	8,708
Colombian	3	1,133	1,083	1,741	1,101	1,342.45	983
Danish	1	5,338	4,223	6,650	4,247	5,278.75	9,218
Danzig	1	6,063	5,196	8,932	5,002	6,495.00	11,365
Dutch	6	28,357	20,572	33,902	20,031	25,715.00	43,808
French	5	24,131	19,649	31,822	19,190	24,561.25	40,291
German	17	61,682	41,121	67,719	40,818	51,401.25	78,171
Greek	6	23,355	16,783	26,706	16,729	20,978.75	45,112
Italian	3	20,247	14,529	25,516	15,538	18,161.25	21,173
Japanese	5	23,288	19,966	29,512	19,392	24,755.80	27,687
Norwegian	14	47,980	37,112	58,820	37,051	45,571.51	76,844
Panaman	4	2,918	1,676	4,125	2,879	2,039.68	627
Peruvian	3	8,032	6,508	11,535	6,685	7,981.35	9,456
Spanish	1	2,827	2,459	4,349	2,565	3,073.75	597
Swedish	4	17,978	13,333	40,334	16,115	16,666.25	55,709
United States	101	497,340	386,411	626,895	385,920	482,605.85	766,816
Yugoslav	3	11,211	8,218	13,026	8,199	10,272.50	20,834
Totals, October, 1928	251	1,133,692	867,994	1,436,367	874,503	1,084,360.04	1,706,836
Totals, October, 1927	278	1,240,069	971,385	1,587,793	975,218	1,212,272.69	2,017,054
Totals, October, 1926	216	1,031,280	810,255	1,331,947	815,672	1,016,075.13	1,676,088

[1] British cruiser of 5,300 displacement tons, paying tolls of $2,650 included in number of ships and tolls collected; tonnage not included.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	4,792	4,142	6,511	4,172	$5,177.50	8,160
British	[1] 148	723,228	542,986	880,434	541,942	[1] 643,812.59	679,469
Chilean	3	14,049	10,332	21,930	11,928	12,915.00	11,279
Colombian	8	2,521	2,411	3,868	2,436	2,983.95	3,059
Costa Rican	1	39	39	78	39	29.25	.....
Danish	7	29,518	24,381	36,782	23,805	29,287.48	32,261
Danzig	3	18,864	14,891	25,170	14,239	15,711.72	11,365
Dutch	16	77,748	56,199	94,145	55,226	66,509.62	71,926
French	11	52,838	42,765	68,025	41,990	51,600.70	53,846
German	33	117,943	77,765	129,912	77,763	97,206.25	130,032
Greek	9	34,681	24,823	39,618	24,706	29,133.47	45,112
Italian	5	32,346	23,625	40,875	25,104	29,531.25	24,735
Japanese	13	64,732	55,724	82,524	54,606	69,108.40	70,793
Norwegian	32	112,677	83,942	135,675	82,760	99,096.66	140,237
Panaman	7	5,699	3,223	6,879	4,413	3,948.56	3,438
Peruvian	[2] 7	13,396	9,012	19,457	10,626	[2] 11,611.35	10,128
Spanish	4	14,308	11,923	19,701	12,158	12,343.64	750
Swedish	10	46,109	33,748	92,647	41,053	37,183.09	63,502
United States	234	1,129,781	881,640	1,426,780	878,461	1,040,209.16	1,194,702
Yugoslav	5	20,111	15,340	24,228	15,358	17,545.66	27,683
Totals, October, 1928	557	2,515,380	1,918,911	3,155,239	1,922,785	2,274,945.30	2,582,477
Totals, October, 1927	567	2,585,752	2,013,309	3,274,032	2,010,115	2,380,115.97	2,717,646
Totals, October, 1926	445	2,124,519	1,674,508	2,744,672	1,681,697	1,989,213.93	2,374,711

[1] Includes two naval vessels having a total displacement tonnage of 10,834 tons. [2] Includes two naval vessels having a total displacement tonnage of 1,000 tons.

Panama Canal Records.

A statement of various records made by traffic through the Panama Canal at different times was published in THE PANAMA CANAL RECORD of February 15, 1928. Since that time new records have been established with respect to several items, viz., commercial traffic for one year, commercial traffic for one day, and lowest pro rata cost of tolls per ton of cargo. A revised statement is accordingly given below.

In the tabulations directly following, data are shown separately for merchant or commercial vessels and for naval vessels because they are different types of craft:

MERCHANT OR COMMERCIAL VESSELS.

Feature.	Record.	Vessel.	Date of transit.
Length	678.2 feet	Empress of Scotland	April 2, 1926.
Beam	83.2 feet	Malolo	November 2, 1927.
Draft	35 feet 6 inches	Lebore	July 23, 1925.
	35 feet 6 inches	Marore	April 18, 1927.
Tonnage:			
Registered gross	27,132 tons	Belgenland	December 12, 1924.
Registered net	15,352 tons	Belgenland	December 12, 1924.
Panama Canal net	18,999 tons	Empress of Scotland	April 2, 1926.
United States net	13,769 tons	Empress of Scotland	April 2, 1926.
Tolls	$17,211.25	Empress of Scotland	April 2, 1926.
Cargo	22,000 tons crude oil	William Rockefeller	October 27, 1922.

(NOTE.—The *Belgenland* has made 3 transits since December 12, 1924, *viz.*, in December, 1925, December, 1926, and December, 1927. The *Empress of Scotland* has made 1 transit since April 2, 1926, *viz.*, in April, 1927.)

NAVAL VESSELS.

Feature.	Record.	Vessel.	Date of transit.
Length	888 feet	U. S. S. Saratoga	February 5, 1928.
Beam	107.9 feet	U. S. S. Saratoga	February 5, 1928.
Draft	33 feet 1 inch	U. S. S. Colorado	March 19, 1926.
Tonnage	44,799 tons displacement.	H. M. S. Hood	July 23 and 24, 1924.
Tolls	$22,399.50	H. M. S. Hood	July 23 and 24, 1924.

(Note.—The U. S. S. *Lexington*, a sister ship of the U. S. S. *Saratoga*, transited on March 25, 1928.)

In the following data the term "commercial traffic" includes all craft subject to payment of tolls except small vessels under 20 net tons, Panama Canal measurement. It does not include vessels in the public

service of the Governments of the United States, Panama, and Colombia, and ships which transit the Canal solely for the purpose of having repairs made at the Balboa shops and dry dock, as such vessels are exempt from payment of tolls.

Largest year's commercial traffic:

Number of transits, 6,456, fiscal year 1928.
Panama Canal net tonnage, 29,458,634, fiscal year 1928.
Tolls, $26,944,499.77, fiscal year 1928.
Cargo, 29,630,709, fiscal year 1928.

Largest month's commercial traffic:

Number of transits, 589, December, 1927.
Panama Canal net tonnage, 2,616,728 tons, December, 1927.
Tolls, $2,398,459.75, December, 1927.
Cargo, 2,717,646 tons, October, 1927.

Largest day's commercial traffic:

Number of transits, 33, October 1, 1927.
Panama Canal net tonnage, 152,610 tons, November 15, 1927.
Tolls, $137,053.98, April 10, 1828.
Cargo, 163,202 tons, January 14, 1924.

Largest day's commercial traffic in one direction:

Number of transits, 19, Atlantic to Pacific, October 1, 1927.
Panama Canal net tonnage, 90,922 tons, Atlantic to Pacific, September 19, 1927.
Tolls, $81,325.06, Atlantic to Pacific, October 1, 1927.
Cargo, 133,757 tons, Pacific to Atlantic, May 2, 1924.

Largest number of transits in any one day:

Thirty-five Government and 22 commercial vessels, a total of 57 vessels, January 17, 1924.

Smallest day's commercial traffic occurred on November 18, 1924, on which the number of transits was 2; Panama Canal net tonnage, 2,870 tons; tolls, $2,865; and cargo, 2,809 tons.

The lowest pro rata cost of tolls per ton of cargo carried through the Canal on a commercial vessel is $0.2166 per ton, which occurred with the transit of the Swedish motor ship *Amerikaland*, on April 20, 1928, carrying a cargo of iron ore from Cruz Grande, Chile, to Baltimore, Maryland. On this transit the *Amerikaland* carried 21,600 tons of cargo and paid tolls of $4,678.75.

The fastest transit through the Canal, in 4 hours and 10 minutes, was made by the United States destroyer *Lawrence*, southbound, on December 2, 1917.

United States Intercoastal Traffic by Commodities for October, 1928.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for October, 1928, and the totals for October, 1927 and 1926. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the destination of "General cargo." These statistics are accordingly not precise but they are indicative of the kind and quantity of the cargo in transit through the Canal. The figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Agricultural implements	1,693	100	1,793
Alfalfa	.....	27	27
Alfalfa meal	.....	775	775
Ammonia	104	.....	104
Ammunition	140	.....	140
Asbestos	40	.....	40
Asphalt	235	110	345
Automobiles	1,385	50	1,435
Automobile accessories	332	54	386
Cascara bark	.....	75	75
Barley	.....	502	502
Beans	9	17,029	17,038
Bones and bone meal	44	.....	44
Borax	175	929	1,104
Bricks	222	.....	222
Burlap	363	296	659
Calcium carbide	85	.....	85
Camphor	.....	276	276
Canned goods:			
Fish	1,848	20,090	21,938
Fruit	379	39,459	39,838
Meat	87	234	321
Milk	61	994	1,055
Soup	1,243	.....	1,243
Vegetables	2,321	8,928	11,249
Miscellaneous	3,255	17,884	21,139
Carbon black	135	170	305
Celite filtercel	.....	650	650
Cement	1,024	.....	1,024
Charcoal	293	30	323
Chemicals	1,471	1,311	2,782
China and fire clay	394	27	421
Coal	3,767	.....	3,767
Cocoa	21	16	37
Coconuts	.....	430	430
Coffee	124	69	193
Coke	24	.....	24
Cold storage:			
Butter	.....	17	17
Cheese	.....	380	380
Lard	495	.....	495
Other	510	88	598
Confectionery	616	.....	616
Cork	59	.....	59
Cotton	84	790	874
Cyanide	125	.....	125
Drugs	2,558	12	2,570
Earthenware	97	60	157
Eggs, dried	.....	14	14
Explosives	27	12	39
Flour	32	9,129	9,161
Fruit:			
Dried	139	24,458	24,597
Fresh	.....	526	526
Fuller's earth	525	.....	525
Furniture	717	.....	717
General	51,134	11,009	62,143
Glass and glassware	3,247	121	3,368
Glue	46	.....	46
Granite	42	.....	42
Graphite	20	.....	20
Hair	100	190	290
Hardwoods	1,182	.....	1,182
Hay	.....	100	100
Hemp	22	1,044	1,066
Honey	.....	346	346
Hops	.....	47	47
Ink	123	.....	123
Jute	79	.....	79
Leather	12	2	14
Lime	71	.....	71
Linoleum	1,530	.....	1,530
Liquors	229	.....	229
Lumber	1,435	172,961	174,396
Malt	177	3	180
Manufactured goods:			
Iron and steel	139,813	1,098	140,911
Machinery	4,808	622	5,430
Railroad material	4,270	.....	4,270
Tinplate	3,972	.....	3,972
Textiles	2,741	130	2,871
Miscellaneous	9,227	1,208	10,435
Marble	165	.....	165
Matches	67	.....	67

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Metals:			
Antimony		55	55
Copper	420	8,175	8,595
Iron	455		455
Lead	819	225	1,044
Scrap	933	203	1,136
Zinc	156	659	815
Other	55		55
Milk, powdered	23	787	810
Molasses	81		81
Nitrates	21		21
Nuts	67	1,261	1,328
Oats	62		62
Oils:			
Cottonseed	16		16
Crude	18		18
Gas oil, fuel oil		13,032	13,032
Gasoline, benzine, and naphtha	100	147,446	147,546
Kerosene	480	12,186	12,666
Lubricating and greases	4,191	130	4,321
Vegetable	95	36	131
Wood	40		40
Other	80	14	94
Ores:			
Copper		950	950
Magnesite		2,311	2,311
Other	40		40
Paint	887	79	966
Paper	6,661	2,610	9,271
Paper, pulp		1,543	1,543
Paper roofing	89		89
Peanuts	75	25	100
Peas		440	440
Phosphates	1,306	45	1,351
Porcelain	204	159	363
Rags	77	369	446
Rice	583	296	879
Rope	60	41	101
Rosin	1,078		1,078
Rubber:			
Manufactured	1,380	22	1,402
Scrap	69	50	119
Salt	104		104
Sand	629		629
Seeds:			
Cotton	25		25
Grass		226	226
Other		452	452
Shells	1,857	16	1,873
Silk		511	511
Skins and hides		1,207	1,207
Slate	954		954
Soap	2,736	64	2,800
Soda	413		413
Soda ash	1,421		1,421
Soda, bicarbonate	107		107
Soda, caustic	1,159		1,159
Starch	112		112
Sugar	16	2,920	2,936
Sulphur	8,410		8,410
Syrup	68		68
Talc	38	135	173
Tallow		305	305
Tar	361		361
Tea		33	33
Tobacco	7,350	53	7,403
Toys	45	61	106
Turpentine	128		128
Vegetables	20	4	24
Waste	111	150	261
Wax	223	69	292
Wheat		2,669	2,669
Wine	20	238	258
Wool		1,713	1,713
Zinc oxide	23		23
Totals, October, 1928	298,721	538,857	837,578
Totals, October, 1927	210,464	807,849	1,018,313
Totals, October, 1926	204,755	743,705	948,460

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessels furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 13 years of operation.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 201.

PORT OF BALBOA.

* ARRIVALS.

Date.	Vessel.	Line.	From—
November 4	Regulus	R. S. Silva & Co	Los Angeles, Calif.
November 6	Cricamola [26]	Chiriqui Land Co	Pto. Armuelles, R. P.
November 7	A. B. de Obarrio [27]	Pacific Fruit Co	Bayano River, R. P.
November 7	El Colon [27]	H. Elliot	El Real, R. P.
November 7	Almirante [27]	A. Valdez	Bayano River, R. P.
November 7	Craftsman [28]	R. J. McArdle Contracting Co	Buenaventura, Colombia.
November 9	San Luis [27]	Chiriqui Land Co	Pto. Armuelles, R. P.
November 9	Epoca [29]	Grace Line	Buenaventura, Colombia.

* DEPARTURES.

Date.	Vessel.	Line.	For—
November 7	A. B. de Obarrio [27]	Pacific Fruit Co	Bayano River, R. P.
November 7	El Colon	H. Elliot	El Real, R. P.
November 7	Almirante [27]	A. Valdez	Bayano River, R. P.
November 8	Regulus	R. S. Silva & Co	Callao, Peru.
November 8	Cricamola [26]	Chiriqui Land Co	Pto. Armuelles, R. P.

[26] Motor yacht. [27] Motor schooner. [28] Tug. [29] Motor ship. * Other than ships passing through the Canal.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

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Canal Traffic During First Fifteen Days of November.

During the first 15 days of November, 259 commercial vessels and 2 small launches transited the Canal. Tolls on the commercial vessels aggregated $1,091,837.27, and on the launches, $12, or a total tolls collection of $1,091,849.27.

The daily average of transits of commercial vessels was 17.27 and the daily average tolls collection $72,789.15. The average amount of tolls paid by each of the commercial transits was $4,215.59, as compared with $3,981.22 for the first 15 days of October. With respect to the number of commercial transits, traffic for the first 15 days of November was the same as the first 15 days of October, although the tolls this month were some $60,000 higher.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 10½ months of the current calendar year, with the daily averages of transits and tolls:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,370.57	17.48	71,271.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November (first 15 days)	259	1,091,837.27	17.27	72,789.15
Totals	5,487	22,798,832.81	17.14	71,246.35

Grace Line Awards Contract for Ship.

The Grace Line has announced the awarding of a contract to the New York Shipbuilding Corporation of Camden, N. J., for the construction of a combined passenger and freight turbo-electric liner for the company's New York-west coast of South America service. The new ship, which will be 502 feet long and 64 feet beam, is to be delivered in January, 1930. It is reported that the new vessel will have the same general characteristics as the two new motor liners *Santa Maria* and *Santa Barbara* recently placed in the service by the Grace Line except that it will be turbo-electrically driven instead of being propelled by Diesel engines. The new ship is to have accommodations for 175 first-class passengers and a cargo capacity of 7,000 tons.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

CANAL WORK IN OCTOBER, 1928.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of October, 1928.

BALBOA HEIGHTS, C. Z., *November 13, 1928.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of October, 1928:

NUMBER OF TRANSITS.

During the month 557 commercial vessels passed through the Canal. In addition to these, 10 nonseagoing launches measuring under 20 tons, and 30 vessels belonging to or chartered by the United States Government transited the Canal. There was also one transit of a Panaman Government vessel and four transits of vessels solely for repairs on which no tolls were collected, making a total of 602 transits for the month, or a daily average of 19.42.

Tolls on the 557 commercial vessels amounted to $2,274,945.30, and on the launches to $94.50, a total of $2,275,039.80, or a daily average on all traffic of $73,388.38.

Traffic for October, 1928, was the heaviest of any month in the current calendar year to date, exceeding that of the previous month by 70 transits. This increase was largely due to increased traffic from the Atlantic to the Pacific, the number of transits in this direction having increased by 53 over September. As compared with October, 1927, traffic for the past month decreased by 10 transits owing to the comparatively small amount of mineral oils and wheat passing through from the Pacific to the Atlantic. The decrease in these two items amounted to almost 320,000 tons under October, 1927.

The total numbers of craft of all kinds transiting the Canal during the month of October, 1928, as compared with the same month in 1927 and 1926, are shown in the following tabulations:

	October, 1928.	October, 1927.	October, 1926.
Commercial vessels	557	567	445
Noncommercial vessels (Army and Navy)	30	23	25
Launches (under 20 tons)	10	14	19
Panaman Government vessels	1	.....	.....
Colombian Government vessels	.....	1	.....
Vessels for repairs	4	2	1
Totals	602	607	490

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	5	6	11
Pedro Miguel	32	40	72
Miraflores	32	39	71
Totals	69	85	154

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the calendar year 1928, to the end of October, 1928, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927.	1928.	1927.	1928.	1927.	1928.	1927.	1928.
January	443	540	2,121,631	2,422,770	2,241,765	2,372,061	$1,984,760.71	$2,212,752.50
February	449	547	2,201,328	2,460,111	2,230,107	2,660,425	1,994,869.82	2,253,755.37
March	496	542	2,413,999	2,441,077	2,533,525	2,428,662	2,217,913.20	2,223,370.57
April	464	531	2,224,500	2,384,491	2,429,807	2,473,884	2,065,236.92	2,187,607.82
May	471	508	2,248,892	2,274,612	2,379,713	2,497,588	2,066,070.73	2,118,969.83
June	455	481	2,152,926	2,227,865	2,229,097	2,139,565	1,970,377.97	2,016,211.09
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	2,215,515.99	2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
September	540	487	2,532,942	2,295,053	2,397,753	2,313,011	2,291,432.34	2,111,230.56
October	567	557	2,585,752	2,515,380	2,717,646	2,582,477	2,380,115.97	2,374,945.30
Totals	4,937	5,228	23,402,539	23,777,000	24,039,828	24,184,964	21,463,295.20	21,706,995.54

[1] Commercial traffic includes all oceangoing vessels paying tolls. Vessels in direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for October, 1928, as compared with the corresponding month in 1927 and 1926, and the monthly averages for the fiscal year 1928:

	October, 1928.	October, 1927.	October, 1926.	Average per month for fiscal year 1928.
Number of vessels	557	567	445	538
Panama Canal net tonnage	2,515,380	2,585,752	2,124,519	2,454,886
United States net tonnage	1,918,911	2,013,309	1,674,508	1,905,316
Registered gross tonnage	3,155,239	3,274,032	2,744,672	3,100,239
Registered net tonnage	1,922,785	2,010,115	1,681,697	1,903,974
Tolls	$2,274,945.30	$2,380,115.97	$1,989,213.93	$2,245,374.98
Tons of cargo carried	2,582,477	2,717,646	2,374,711	2,469,225

The daily average number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year.
	October, 1928.	October, 1927.	October, 1926.	
Number of transits	17.97	18.29	14.35	17.63
Panama Canal net tonnage	81,141	83,411	68,533	80,488
Tolls	$73,385.33	$76,777.93	$64,168.19	$73,618.85
Tons of cargo carried	83,305	87,666	76,604	80,958

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of October, 1928, as compared with October, 1927 and 1926, are shown in the following tabulation:

	Average per vessel.		
	October, 1928.	October, 1927.	October, 1926.
Panama Canal net tonnage	4,516	4,560	4,774
United States net tonnage	3,445	3,551	3,763
Registered gross tonnage	5,665	5,774	6,168
Registered net tonnage	3,452	3,545	3,779
Tolls	$4,084.28	$4,197.74	$4,470.14
Tons of cargo (including vessels in ballast)	4,636	4,793	5,336
Tons of cargo (laden vessels only)	5,688	5,870	6,200

TOLLS.

At present tolls are collected at rates of $1.20 per net ton for laden vessels and 72 cents per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed $1.25 per ton nor be less than 75 cents per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined both in accordance with the Panama Canal and the United States rules of measurement.

Due to this limiting proviso the tolls actually collected on laden vessels averaged $0.94 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of October, 1928, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1.00 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian	$5,177.50	$4,792.00		$385.50
British	[1] 643,812.59	[1] 666,610.20	$22,797.61	
Chilean	12,915.00	14,049.00	1,134.00	
Colombian	2,983.95	2,521.00		462.95
Costa Rican	29.25	23.40		5.85
Danish	29,287.48	27,694.40		1,593.08
Danzig	15,711.72	13,743.60		1,968.12
Dutch	66,509.62	73,049.60	6,539.98	
French	51,600.70	51,020.00		580.70
German	97,206.25	117,943.00	20,736.75	
Greek	29,133.47	30,150.60	1,017.13	
Italian	29,531.25	32,346.00	2,814.75	
Japanese	69,108.40	64,732.00		4,376.40
Norwegian	99,096.66	105,681.80	6,585.14	
Panaman	3,048.56	5,627.80	[1] 1,679.24	
Peruvian	[2] 11,611.35	[2] 13,896.00	2,284.65	
Spanish	12,343.64	11,253.20		1,090.44
Swedish	37,183.09	38,580.20	1,397.11	
United States	1,040,209.16	1,055,720.60	15,511.44	
Yugoslav	17,545.66	18,439.80	894.14	
Totals	2,274,945.30	2,347,874.20	83,391.94	10,463.04
Net increase for all traffic			72,928.90	

[1] Includes $5,417 collected for naval vessels at 50 cents per displacement ton. [2] Includes $500 collected for naval vessels at 50 cents per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$18,262.33
United States foreign trade	[1] 2,128.48
United States-Canal Zone trade	[1] 622.41
Net increase	15,511.44

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in October, 1928, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian		1.70	1.70
British	.84	1.44	1.19
Chilean	.55	.93	.81
Colombian	1.50	.87	1.21
Danish	1.17	1.72	1.29
Danzig		1.88	1.88
Dutch	.75	1.54	1.09
French	.56	1.67	1.11
German	.94	1.27	1.11
Greek		1.93	1.93
Italian	.29	1.05	.75
Japanese	1.04	1.19	1.09
Norwegian	1.30	1.65	1.47
Panaman	1.03	.22	.62
Peruvian	.13	1.18	.75
Spanish	.04	.21	.11
Swedish	.84	3.09	2.32
United States	.96	1.54	1.26
Yugoslav	1.45	1.86	1.74
Averages, October, 1928	.92	1.51	1.24
Averages, October, 1927	.82	1.69	1.35
Averages, October, 1926	.90	1.63	1.31

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of October, 1928, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	4	18,450	$17,720.00	33	193,012	$196,672.50
Ballast	44	227,960	164,163.99	1	5,095	3,668.40
General cargo ships:						
Laden	206	936,539	862,393.76	212	933,732	879,971.65
Ballast	46	198,430	142,770.51	3	1,742	1,254.24
Noncargo-carrying ships:						
Naval vessels	3	.....	3,267.00	1	.....	2,650.00
Tugs	1	90	108.00	1	111	143.25
Yachts	2	219	162.00	.....	.....	.....
Totals	306	1,381,688	1,190,585.26	251	1,133,692	1,084,360.04
Method of propulsion:						
Steam	242	1,111,952	967,868.93	206	920,722	888,616.08
Motor	62	269,214	222,327.08	43	211,257	193,688.36
Motor (schooner)	1	180	132.75	.....	.....	.....
Nonpropelled	1	342	256.50	1	67	80.40
Sail	.....	.....	.....	1	1,646	1,975.20
Totals	306	1,381,688	1,190,585.26	251	1,133,692	1,084,360.04

Of the 448 steam-driven vessels, 291 were oil burning, 155 coal burning, and 2 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of October, 1928. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and Nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cargo ships	.....	.....	.....	1	[3]3,415	$4,268.75
Cruisers	1	[1]8,900	$4,450.00	3	[1]14,550	7,275.00
Gunboats	1	[1]1,575	787.50	1	[1]1,575	787.50
Launches	2	[3]20	15.00	.....	.....	.....
Minesweepers	2	[1]1,900	950.00	1	[1]950	475.00
Submarines	3	[1]2,562	1,281.00	3	[1]1,525	762.50
Supply ships	.....	.....	.....	1	[1]4,405	5,506.25
Survey ships	.....	.....	.....	1	[1]2,600	1,300.00
Tankers	1	[3]6,424	7,708.80	.....	.....	.....
Tugs	2	[1]2,000	1,000.00	2	[1]2,000	1,000.00
U. S. Army vessels:						
Mineplanters	1	[1]1,208	604.00	1	[1]1,208	604.00
Transports	2	[3]7,361	9,201.25	1	[3]3,908	4,885.00
Totals, U. S. Government	15		25,997.55	15		26,864.00
Panaman Government vessels:						
Transports	1	[3]98	73.50	.....	.....	.....
Vessels for repairs:						
Tankers	2	[3]3,186	2,389.50	[3]2	[3]3,186	2,389.50
Grand totals	[3]18	.....	28,460.55	17	.....	29,253.50

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of October, 1928, carried cargo as follows: Atlantic to Pacific, 1,815 tons; Pacific to Atlantic, 473 tons; total, 2,288 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches transiting the Canal during the month of October, 1928. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific	5	38	$35.25	.....
Pacific to Atlantic	5	58	59.25	37
Totals	10	96	94 50	37

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of October, 1928, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving tons	54,149	39,932	94,081
Local cargo shipped tons	10,275	692	10,967
Transit cargo arriving tons	2,549,513	2,576,307	5,125,820
Transit cargo clearing tons	2,540,543	2,579,033	5,119,576
Cargo received for transshipment tons	36,716	244	36.960
Cargo transshipped tons	38,946	261	39,207
"Canal Zone for Orders" cargo:			
Number of receipts issued	62	25	87
Number of withdrawals	438	169	607
Tons received	4 069	272	4,332
Tons withdrawn	3,198	275	3,473
Packages received	4,934	4,086	9,020
Packages withdrawn	6,229	3,889	10,118
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company	70	7	77
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company tons	20,373	512	20,885
Coal issued, miscellaneous:			
Panama Canal departments tons	317	39	356
U. S. Army, including vessels tons	204	1	205
Individuals and companies tons	188	. .	188
Panama Railroad Company tons	5	. .	5
Transferred to Navy tons	552	. .	552
Total sales and issues tons	21,639	552	22,191
Coal on hand, October 1, 1928 tons	45,050	. .	45,050
Coal on hand, November 1, 1928 tons	32,005	. . . . .	32,005
Coal received during month tons	8,591	. . . .	8,594
Coal received from Navy tons	. .	552	552
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments bbls	6,883.62	16,424.34	23,307.96
Panama Railroad Company bbls	1,265.60	. . . .	1,265.60
U. S. Army and Navy bbls	698.20	105.98	804.18
Individuals and companies bbls	. . .	351.17	351.17
Total sales and issues bbls	8,847.42	16,881.49	25,728.91
Fuel oil on hand, November 1, 1928 bbls	66,501.80	59,741.68	126,243.48
Diesel oil received during October bbls	. . . .	506.19	506.19
Diesel oil sold during October bbls	102.72	506.19	608.91
Diesel oil on hand, November 1, 1928 bbls	23,568.78	493.25	24,062.03
Miscellaneous transfers bbls	708.53	1,026.15	1,734.68
Gasoline and kerosene pumped for The Panama Canal bbls	2,416.87	705.15	3,122.02
Gasoline pumped for individuals and companies bbls	. . . . .	8,054.12	8,054.12
Oil pumped for individuals and companies bbls	519,134.32	435,768.23	954,902.55
Oil pumped for U. S. Shipping Board bbls	1,707.00	732.00	2,439.00
Oil pumped for U. S. Navy bbls	7,163.00	. . . . .	7,163.00
Total fuel oil, gasoline, and kerosene handled bbls	540,079.86	463,673.33	1,003,753.19
Admeasurement of vessels:			
U. S. equivalent certificates issued	36	3	39
Measured for Panama Canal net tonnage	12	1	13
Remeasured for Panama Canal net tonnage	24	2	26
Panama Canal net tonnage corrected	1	4	5
U. S. equivalent tonnage corrected	12	. 11	23
Services of harbor equipment:			
Tugs, total operating hours	519¼	416	935¼
Launches, total operating hours	1,486	1,676½	3,162½

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc.:			
Tug revenue	15,052.75	12,232.50	27,286.25
Pilotage	19,984.00	8,269.00	28,253.00
Seamen	13,940.00	11,448.00	25,388.00
Launch service	2,431.50	3,099.50	5,531.00
Wharfage	17,468.00	5,752.20	23,220.20
Ships measured	480.00	50.00	530.00
Miscellaneous	1,274.35	1,071.22	2,345.57
Ships repaired at Panama Canal shops:			
Commercial	64	24	88
U. S. Army and Navy	4	12	16
Panama Canal equipment	8	11	19
Totals	76	47	123
Vessels dry-docked:			
Commercial	8	11	19
U. S. Army and Navy		2	2
Panama Canal equipment	2	4	6
Totals	10	17	27
Clearances issued	308	321	629
Bills of Health issued	302	321	623

ALL VESSELS ENTERING AND CLEARING PORT

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage
Ships entering.						
All vessels, including those transiting Canal	617	3,484,839	2,125,553	587	3,288,960	2,026,842
Vessels entering port but not transiting Canal	69	288,923	172,325	21	50,980	32,091
Vessels transiting Canal and handling passengers and cargo at terminal ports	120	660,801	403,828	89	526,143	319,801
Ships clearing.						
All vessels, including those transiting Canal	620	3,506,449	2,140,931	591	3,308,431	2,044,239
Vessels clearing port but not transiting Canal	71	305,318	183,460	26	55,301	35,618
Vessels transiting Canal and handling passengers and cargo at terminal ports	123	678,375	416,349	91	527,389	320,492

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,513	736	2,249	220	248	468
From Pacific ports	143	100	243	197	138	335
Total disembarking	1,656	836	2,492	417	386	803
Embarking:						
For Atlantic ports	1,027	670	1,697	68	329	397
For Pacific ports	205	89	294	231	268	499
Total embarking	1,232	759	1,991	299	597	896
Remaining on board:						
From Atlantic to Pacific ports	599	190	789	1,666	2,251	3,917
From Pacific to Atlantic ports	650	1,226	1,876	668	869	1,537
From Atlantic to Atlantic ports	1,608	2,378	3,986			
From Pacific to Pacific ports				16	326	342
Total remaining on board	2,857	3,794	6,651	2,350	3,446	5,796
Total arriving	4,513	4,630	9,143	2,767	3,832	6,599
Total departing	4,089	4,553	8,642	2,649	4,043	6,692

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	306	60	19.6
Pacific to Atlantic	251	60	23.9
Totals	557	120	21.5

In addition to the aforesaid, 55 passenger-carrying vessels called at the port of Cristobal and 5 at the port of Balboa without transiting the Canal, making a total of 180 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of October, 1928:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$3,090.64	$12,068.59	$20,302.41	$95.42	$5,933.52	$50,490.58
Government vessels	125.78	828.82	11,669.28	105.99	541.70	13,271.57
Panama Railroad vessels	9.45	2.38	1,871.59	855.68	322.96	3,062.06
Total sales, October, 1928	3,225.87	12,899.79	42,843.28	1,057.09	6,798.18	66,824.21
Total sales, October, 1927	2,624.34	14,271.83	34,419.47	1,148.24	6,629.82	59,093.70
Total sales, October, 1926	2,308.07	14,169.18	44,846.78	1,103.68	5,751.35	68,179.06
Sales at Balboa to:						
Commercial vessels	306.25	15,232.85	20,387.73	726.65	6,133.94	42,787.42
Government vessels	300.70	4,427.88	19,688.14	166.69	1,126.97	25,710.38
Panama Railroad vessels				42.24		42.24
Total sales, October, 1928	606.95	19,660.73	40,075.87	935.58	7,260.91	68,540.04
Total sales, October, 1927	1,420.83	14,569.73	37,558.46	1,007.36	4,761.25	59,317.63
Total sales, October, 1926	1,171.60	9,792.83	23,230.91	587.11	2,754.62	37,537.07

The aggregate sales to Government vessels during the month was $38,981.95; to Panama Railroad vessels, $3,104.30; and to other commercial vessels, $93,278; making the total sales to all vessels, $135,364.25.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of October, 1928, as compared with the corresponding month in 1927 and 1926:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Oct., 1928.	Oct., 1927.	Oct., 1926.
Gatun	243	275	518	11	10	21	539	553	441
Pedro Miguel	247	293	540	18	18	36	576	572	472
Miraflores	246	290	536	16	17	33	569	573	465
	Number of vessels put through locks.								
Gatun	250	305	555	31	26	57	612	636	528
Pedro Miguel	250	302	552	59	62	121	673	667	557
Miraflores	250	302	552	59	61	120	672	676	557

CLASSIFICATION OF NONCOMMERCIAL TRAFFIC.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	32	33	33
Panama Canal equipment	11	72	71
Launches (under 20 tons)	9	11	11
Panaman Government vessels	1	1	1
Vessels for repairs	4	4	4

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in October, 1928, as compared with the preceding month and the corresponding month in 1927:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	2,161,740,000	1,832,840,000	1,724,670,000
Leakage	60 000,000	30,500,000	20,000,000
Maintenance			34,780,000
Totals, October, 1928	2,221,740,000	1,863,340,000	1,779,450,000
Totals, September, 1928	1,917,410,000	1,587,400,000	1,524,900,000
Totals, October, 1927	2,188,900,000	1,891,490,000	1,745,740,000

HYDROGRAPHY.

In the following tabulation the hydrographic conditions in the Canal Zone and vicinity during the month of October, 1928, are shown in comparative form:

	October.		October—Years of record.		
	1928.	1927.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Chagres River at Alhajuela:					
Monthly mean discharge	4,001	3,238	8,126	2,031	3,579
Maximum momentary discharge	23,702	12,050	[1] 108,300		
Gatun Lake watershed:					
Total yield	10,999	9,439	27,260	9,432	12,880
Net yield	10,445	8,810	26,805	8,810	12,324
Draft on Gatun Lake for lockages and power	2,948	2,943	2,948	[2] 1,191	[2] 2,290

[1] October 22, 1923. [2] Not including October, 1913.

The total yield of the Gatun Lake watershed for the month of October was 15 per cent below the 15-year October average, or 10,999 c. f. s. compared with an average of 12,880 c. f. s. Maximum and minimum October total yields of record are 27,260 c. f. s. in 1923 and 9,432 c. f. s. in 1926, respectively. The lake varied in elevation from 85.76 feet on the 1st to 86.65 feet on the 31st, averaged 86.09 feet, and ended at elevation 86.54 feet. There was an increase in storage during the month of 2.9 billion cubic feet, the equivalent of .64 of a foot on Gatun Lake. The net yield for the month amounted to 28 billion cubic feet.

Miraflores Lake varied in elevation from 53.20 feet on the 30th to 54.90 feet on the 13th, averaged 53.98 feet, and ended at elevation 54.30 feet. Eight hundred and fifty-one million cubic feet were wasted over the Miraflores spillway.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 8th, 11th, 12th, 13th, 25th, and 30th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,063,800 kilowatt hours, and the computed water consumption was 3,902,280,300 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 1,700 kilowatt hours, with a fuel oil consumption of 18.71 barrels.

In addition to the usual operating and maintenance work performed; 48 work orders, comprising 96 items of additions or repairs, were completed on 25 vessels during the month. There were 457 work orders issued during the month, as compared with 349 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 76 vessels at Cristobal and 47 at Balboa. Ten vessels were dry-docked at Cristobal and 17 at Balboa. At Cristobal the annual overhaul of submarines *O–7* and *O–10* was completed during October, and overhaul on the *S–15* was started during the month. At Balboa work was carried forward on the U. S. tug *Sciota*, three U. S. Navy submarines, and the mineplanter *Gen. Wm. M. Graham.*

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. The usual maintenance work was performed on roads, streets, and walks, and the sewer and water systems. The amount of water pumped during the month totaled 727,212,500 gallons.

DREDGING DIVISION.

A general movement and settlement occurred at South Cucaracha slide on the 18th of the month, involving an area of approximately five acres. Observation points in this area moved from 5 to 13 feet. From the 18th to the 22d, the movement continued at a very slow rate after which it remained quiescent. The quantity of material entering the Canal prism was negligible. East and West Culebra slides also showed a slight movement toward the Canal during the month.

There were no other slides and no delays to shipping during the month.

The total excavation during October was 268,650 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Project No. 2, Lirio Curve	5,000	89,850	94,850
Project No. 9, west Culebra basin	500	3,500	4,000
Maintenance	5,000	.....	5,000
Balboa inner harbor—			
Project No. 1	.....	57,800	57,800
Maintenance	3,000	.....	3,000
Plant excavation:			
Naval air station fill, Coco Solo	104,000	.....	104,000
Totals	117,500	151,150	268,650

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and eight trips were made, and 37 Panama Canal, 46 U. S. Army, and 2,113 other vehicles, a total of 2,196 were ferried across the Canal.

SCHOOLS.

The Canal Zone white schools opened on October 1. The colored schools operated on a 12-month basis. Compared with the month of October, 1927, the white schools were increased by 155 pupils and the colored schools by 45 pupils, with 3 additional white teachers and 1 additional colored teacher employed to take care of the increased enrollment.

The following tabulation shows the enrollment and number of teachers for October, 1927 and 1928:

	October, 1927.	October, 1928.
White schools:		
Gross enrollment	2,294	2,449
Teachers	83	86
Colored schools:		
Gross enrollment	2,793	2,838
Teachers	60	61

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on October 31, 1928, totaled 21,578, composed of 7,443 Americans, 2,635 of whom were men, 2,247 women, and 2,561 children; 211 Europeans, 100 of whom were men, 32 women, and 79 children; and 13,924 West Indians, 4,151 of whom were men, 2,590 women, and 7,183 children. The total number of persons in quarters on October 31, 1927, was 21,132.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of October 17, 1928, with a comparison of the working force for the preceding month and for October, 1927:

	As of October 17, 1928.			Total employees.	
	Gold.	Silver.	Total.	September, 1928.	October, 1927.
Operation and Maintenance:					
Office	41	58	99	98	84
Electrical	158	171	329	313	314
Municipal Engineering	86	902	988	776	641
Lock Operation	225	684	909	910	860
Dredging	177	919	1,096	1,085	1,084
Mechanical	486	868	1,354	1,315	1,266
Marine	209	633	842	937	846
Fortifications	23	304	327	374	253
Totals	1,405	4,539	5,944	5,808	5,348
Supply Department:					
Quartermaster	198	1,914	2,112	1,985	1,962
Subsistence	7	100	107	109	100
Commissary	221	1,198	1,419	1,392	1,303
Cattle Industry	6	126	132	131	227
Hotel Washington	9	93	102	102	104
Transportation	54	211	265	262	251
Totals	495	3,642	4,137	3,982	3,947
Accounting Department	194	8	202	202	210
Health Department	278	880	1,158	1,154	1,042
Executive Department	520	298	818	782	789
Totals	992	1,186	2,178	2,138	2,041
Panama Railroad Company:					
Superintendent	49	269	318	319	270
Transportation	64	116	180	184	184
Receiving & Forwarding Agency	87	1,757	1,844	1,447	1,206
Coaling stations	48	271	319	313	343
Totals	248	2,413	2,661	2,263	2,003
Grand totals, October, 1928	3,140	11,780	14,920		
Grand totals, September, 1928	3,090	11,101		14,191	
Grand totals, October, 1927	2,963	10,376			13,339

Additions to the gold force on the Isthmus in October were as follows: Employed in the United States, 36; reemployed in the United States, 1; employed on the Isthmus, 25; reemployed on the Isthmus, 8; total, 70. Separations from the gold force totaled 29, as follows: Resigned, 20; discharged, 6; retired, 2; died, 1. At the end of the month there were on file 120 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 213 deaths occurred during the month of October, 1928, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 19.74 per 1,000 population. The leading causes of death were: Pneumonia (broncho and lobar), 45; tuberculosis (various organs), 38; diarrhea and enteritis, 18; organic diseases of the heart, 16; and syphilis, 11. There were 7 deaths from nephritis, 6 from cancer, 1 each from typhoid fever, whooping cough, diphtheria, amebic dysentery, and meningococcus meningitis. There were 21 deaths of nonresidents. These are not included in the above statistics.

There were 311 live births, and 13 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 30.02 per 1,000 population. Deaths among children under 1 year of age numbered 45, giving an infant mortality rate of 144.69.

The total number of malarial cases reported from the Zone and the cities of Panama and Colon during October was 151, of whom 18 were employees (4 white and 14 colored), 23 were members of employees' families (8 white and 15 colored), 25 were Canal Zone agriculturists, 45 were other civilian nonemployees, and 40 were Army and Navy personnel. Of the 41 employees and members of employees' families, 26 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick. There were no deaths from malaria.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $399,081.72, of which $378,632.98 was for the

Department of Operation and Maintenance and $20,448.74 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to $44,655.98.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of September, 1928, as compared with September, 1927, with the figures for the first three months of the current fiscal year as compared with the same period in the fiscal year 1928.

It is impossible to submit the figures for the month of October at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	September, 1928.	September, 1927.	To end of September.	
			This year.	Last year.
Tolls	$2,125,982.10	$2,294,499.04	$6,417,763.94	$6,784,266.60
Other receipts	324,178.44	287,477.70	958,184.17	859,132.63
Total transit revenues	2,450,160.54	2,581,976.74	7,375,948.11	7,643,399.23
Total transit expenses	1,004,841.96	979,586.61	3,117,793.73	2,888,605.26
Net transit revenues	1,445,318.58	1,602,390.13	4,258,154.38	4,754,793.97
Three per cent capital charge	617,134.86	610,551.14	1,847,912.40	1,829,724.98
Transit surplus	828,183.72	991,838.99	2,410,241.98	2,925,068.99
Business revenues	1,209,257.85	1,188,760.46	3,810,693.78	3,829,460.65
Business expenses	1,147,972.40	1,114,644.62	3,614,772.44	3,578,251.21
Net business revenues	61,285.45	74,115.84	195,921.34	251,209.44
Three per cent capital charge	60,666.36	60,474.77	194,752.22	193,594.83
Business surplus	619.09	13,641.07	1,169.12	57,614.61
Combined revenues	3,335,239.95	3,497,417.74	10,271,175.22	10,858,261.82
Combined expenses	1,928,635.92	1,820,911.77	5,817,099.50	5,652,258.41
Net revenues	1,506,604.03	1,676,505.97	4,454,075.72	5,006,003.41
Three per cent capital charge	677,801.22	671,025.91	2,042,664.62	2,023,319.81
Combined surplus	828,802.81	1,005,480.06	2,411,411.10	2,982,683.60

Respectfully,

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Three Weeks Ending November 17, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cambrai	U. S. Government	October 27.	October 28.	1,268	219
Peru	East Asiatic Co	October 28.	October 29.	424	.....
Cauca	National Navigation Co	October 28.	October 28.	.....	9
Ecuador	Panama Mail S. S. Co	October 28.	October 29.	17	17
City of Panama	Panama Mail S. S. Co	October 30.	October 30.	.....	5
Guatemala	Grace Line	October 30.	October 30.	38	.....
Brielle	Royal Netherlands S. S. Co	October 30.	October 31.	274	.....
Santa Maria	Grace Line	November 1.	November 1.	.....	1
Tejon	Standard Transportation Co	November 1.	November 2.	10,102	.....
Itauri	Hamburg-American Line	November 2.	November 2.	55	.....
President Monroe	Dollar Line	November 2.	November 2.	.....	2
Jamaica	Pacific Steam Navigation Co.	November 3.	November 3.	.....	6
Spreewald	Hamburg-American Line	November 3	November 4.	528	.....
Benjamin Franklin	Fred Olsen & Co	November 3	November 3	389	.....
Taketoyo Maru	Nippon Yusen Kaisha	November 4	November 5	113	.....
Regulus	A. O. Lingvig	November 4	November 8	2,693	.....
Santa Tecla	N. O. & S. A. S. S. Co	November 7	November 7	57	.....
Acajutla	Pacific Steam Navigation Co	November 7	November 8	1	.....
Epoca	Nordstrom Chelin	November 10	November 11	250	.....
Venezuela	Panama Mail S. S. Co	November 12	November 12	30	88
Litiopa	Anglo-Saxon Petroleum Co	November 13	November 14	6,923	.....
Mojave	Standard Transportation Co	November 14	November 15	10,233	.....
Buenos Aires	Spanish Line	November 14	November 14	124	.....
Acajutla	Pacific Steam Navigation Co	November 14	November 14	.....	1
Santa Elisa	Grace Line	November 15	November 15	1	.....
Cauca	National Navigation Co	November 17	November 17	.....	5

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 17, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Panama Canal tonnage. Tons.	Gross.	Net.
Rotorua	10	16.40	11	6.12	11	13.17	11	23.15	British	N. Z. Shipping Co	526 0	61.4	23.6	London, England	Auckland, N. Z.	General	4,540	12,846	9,439
Modavia [2]	10	3.00	11	6.15	11	13.40	11	14.55	British	Donaldson Bros., Ltd.	387.0	53.6	16.5	Glasgow-England	Vancouver, B. C.	General, bananas	1,031	6,719	4,979
Point Sur	11	2.20	11	7.30	11	15.06	11	16.10	American	Gulf-Pacific Line	324 0	46.0	14.11	CorpusChristi, Tex.	Los Angeles, Calif.	(6)	4,708	3,984	2,612
City of Osaka	11	3.45	11	7.50	11	15.11	11	16.40	British	Ellerman Austral'n Line	433 0	57.0	26.2	New York, N. Y.	Fremantle, Austr'lia	General	5,160	8,606	6,774
Kofuku Maru	11	9.00	11	9.20	11	16.08	11	17.30	Japanese	Kokusai Kisen Kaisha	385 0	51.0	21.0	Jacksonville, Fla.	Yohata, Japan	(7)	3,354	6,209	4,763
Castletown	11	10.00	11	10.05	11	16.58	11	21.45	American	Charles Nelson & Co.	321 0	50.0	20.1	Baltimore, Md	Seattle, Wash	General	3,639	3,872	2,568
Eagle [1]	11	14.45	11	14.55	11	21.44	11	23.15	American	Standard Oil Co	410 0	56.0	22.6	New York, N. Y.	Los Angeles, Calif.	Ballast		8,201	6,226
Magicstar	11	15.15	11	15.30	12	13.50	12	15.50	British	Blue Star Line	450 0	54.0	19.6	Liverpool, England	Vancouver, B. C.	Ballast		7,352	5,510
Pennyworth	11	13.40	11	20.05	12	11.46	12	13.00	British	R. S. Dalgliesh	419 0	52.0	25.6	Boca Grande, Fla.	Moji, Japan	Cotton, phos'tes.	6,778	6,179	4,377
Venezuela	10	19.40	12	6.05	12	13.28	12	23.20	American	Panama Mail S. S. Co.	389 0	48.7	24.6	New York, N. Y.	San Francisco, Cal.	General	3,064	6,033	4,353
O-6 [3]			12	6.05	12	14.30			American	U. S. Navy	172 4	18.0		Cristobal, C. Z.	Balboa, C. Z.				
O-8 [3]			12	6.05	12	14.30			American	U. S. Navy	172 4	18.0		Cristobal, C. Z.	Balboa, C. Z.				
O-10 [3]			12	6.05	12	14.30			American	U. S. Navy	172 4	18.0		Cristobal, C. Z.	Balboa, C. Z.				
O-7 [3]			12	6.05	12	14.25			American	U. S. Navy	172 4	18.0		Cristobal, C. Z.	Balboa, C. Z.				
O-9 [3]			12	6.05	12	14.25			American	U. S. Navy	172 4	18.0		Cristobal, C. Z.	Balboa, C. Z.				
S-16 [3]			12	6.05	12	14.25			American	U. S. Navy	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.				
William Penn [2]	11	15.45	12	7.20	12	14.52	12	20.09	American	Roosevelt S. S. Co., S. B.	440 0	60.2	26.10	Baltimore, Md	Hongkong, China	(8)	9,025	9,019	6,226
El Alcto [1 2]	11	19.50	12	7.15	12	15.25	12	21.30	British	Imperial Oil Co	410 0	57.5	21.0	Halifax, N. S.	Talara, Peru	Ballast		7,555	5,049
Cumberland	11	1.40	12	8.55	12	16.43	13	4.50	British	Federal Steam Nav. Co.	520 0	64.2	27.6	Newport, England	Timaru, N. Z.	General	9,450	12,930	9,300
Limon	12	5.38	12	9.55	12	17.10	12	18.22	American	United Fruit Co	330 0	44.0	19.6	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee.	916	3,675	2,229
Ucayali	7	19.15	12	10.23	12	18.18	12	19.45	Peruvian	Peruvian Line	374 7	46.3	18.0	Cristobal, C. Z.	Callao, Peru	General	112	4,466	2,405
San Leonardo [1]	12	7.30	12	10.10	12	17.49	12	23.55	British	Anglo-Mexican Pet. Co.	401 9	54.2	20.0	Ardrossan, England	San Francisco, Cal.	Ballast		5,962	3,650
Feltore	12	1.10	12	11.45	12	18.40	12	19.45	American	Ore S. S. Corp.	449 1	57.2	19.0	Baltimore, Md	Cruz Grande, Chile	Ballast		7,808	5,139
Bagaduce [4]			12	6.05	12	13.28			American	U. S. Navy	149 3	30.0		Cristobal, C. Z.	Balboa, C. Z.				
Major Pullen [5]			12		12	10.49			American	U. S. Army				Cristobal, C. Z.	Gatun, C. Z.				
Sutemico	12	15.40	12	15.50	13	11.46	13	12.50	American	Transmarine Lines	324 0	46.0	19.0	Newark, N. J.	San Francisco, Cal.	General	1,958	3,984	2,628
Magellan	12	14.30	13	5.55	13	13.10	13	14.15	British	Pacific Steam Nav. Co	461 6	59.3	23.2	Hull, England.	Valparaiso, Chile	General	2,811	8,817	6,063
West Cape	12	19.25	13	6.15	13	13.41	13	15.00	American	Munson, McCor'k Line.	409 5	54.2	20.7	New York, N. Y.	Los Angeles, Calif	General	4,729	6,566	4,960
Dakotan	12	21.45	13	7.29	13	13.57	13	15.00	American	Amer.-Hawaiian Line	407 7	53.7	27.0	Boston, Mass.	Seattle, Wash.	General	5,028	7,156	5,094
City of Mandalay	13	8.15	13	8.35	13	15.15	13	16.55	British	Ellerman Lines	442 0	57.0	27.0	Baltimore, Md	Shanghai, China	General	9,278	8,855	6,889
Montrolite [1 2]	13	7.35	13	9.10	13	15.48	13	21.07	British	Imperial Oil Co	410 0	68.3	23.6	Montreal, Canada	Talara, Peru	Ballast		11,555	7,639
Andreas K	13	7.25	13	9.15	13	16.58	13	18.26	Greek	Margaronis Brothers	361 0	46.0	13.6	Barry, England	Arica, Chile	Ballast		4,367	3,161
Robin Adair	13	8.35	13	9.55	13	17.24	13	18.26	American	Isthmian S. S. Lines	424.8	55.2	27.3	New York, N. Y.	Tacoma, Wash	Steel, general	8,846	7,470	5,529
Seminole [2]	13	13.00	13	13.15	13	20.03	16	17.30	American	Roosevelt S. S. Co., S. B.	402.0	54.0	26.0	New Orleans, La.	Fremantle, Aust'lia	General	3,754	6,972	5,002
Dorothy Luckenbach	13	19.25	13	19.50	14	12.35	14	13.55	American	Luckenbach Line	448.9	60.2	26.0	Boston, Mass.	Seattle, Wash.	General	7,800	9,294	6,861
Sun [1 2]	13	19.30	13	20.40	14	13.30	14	14.45	American	Sun Oil Co	480.6	66.0	22.0	Chester, Pa.	Los Angeles, Calif.	Ballast		9,620	6,424

[1] Tanker. [2] Motor ship. [3] Submarine. [4] Tug. [5] Launch. [6] Lumber, sulphur, and general. [7] Scrap rail and tobacco. [8] Case oil, steel, and general.

Saint Joseph	13	10.15	14	6.07	14	15.28	14	16.40	French	French Line	398.0	51.0	20.4	Havre, France	Talcahuano, Chile	General	2,647½	6,025	4,187
Canadian Seigneur	13	20.25	14	6 20	14	16.11	14	17.00	British	Can. Nat. Steamships	400.6	52.0	21.0	Montreal, Canada	Vancouver, B. C.	General	4,600	5,893	4,182
Parrakoola [9]	13	21 20	14	7 15	14	17.06	14	21 15	Swedish	Trans. Pacific S. S. Co.	457.0	57.0	24.0	Umea, Sweden	Brisbane, Australia	General	5,965	8,279	6,190
San Ubaldo [9]	14	00 35	14	7 30	14	17.50	14	18 53	British	Anglo-Mexican Pet. Co.	412 0	53.4	20 0	Hull, England	Los Angeles, Calif.	Ballast		5,976	4,069
Ashby	14	6.30	14	8 35	14	18.24	14	19 35	British	Sir. R. Ropner & Co.	405.0	53.6	24.9	So. Shields, Eng	Vancouver, B. C.	Ballast		5,858	4,300
Atlantic	14	2.15	14	9.40	14	18.48	14	20.07	Danish	Overseas Trading Co.	401.0	53.0	21.3	New Orleans, La	Kobe, Japan	Cotton	4,846	6,604	4,796
Acajutla	8	18.00	14	11.00	14	19.49	14	21.00	British	Pacific Steam Nav. Co.	215.7	33.5	16.11	Cristobal, C. Z	Champerico, Guat	General	1,126½	1,273	706
Doricstar	14	9.20	14	13.10	14	21.15	15	4 30	British	Blue Star Line	499.0	64.0	21.0	Liverpool, England	Seattle, Wash	Ballast		11,673	8,143
Santa Elisa	14	14.25	15	6.08	15	12.44	15	17.25	American	Grace Line	360.3	51.7	23.0	New York, N. Y.	Talcahuano, Chile	General	2,180½	5,957	4,325
Canadian Britisher	14	19.10	15	6.10	15	13 41	15	14.50	British	Can. Nat. Steamships	400.0	52.2	22.3	Montreal, Canada	Auckland, N. Z.	([10])	3,865	5,906	4,187
Handicap [9]	15	1 40	15	7.25	15	14 00	15	15.35	Norwegian	Bruusgaard Line	415.0	55.0	21.0	Antwerp, Belgium	Bellingham, Wash	General	5,186	7,296	5,445
Cambrai [9]	15	7.35	15	7.50	15	14.23	16	12 10	American	U. S. Army	448.0	58 2	24.0	Brooklyn, N. Y.	San Francisco, Cal.	Army supplies	338		
Atlas [1]	15	3 55	15	8.40	15	15.12	15	16 30	American	Standard Transp. Co.	430.0	58.2	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,348	5,164
Myrtle	15	8 28	15	8.50	15	15.48	15	17 25	American	Quaker Line	410 5	54.0	21.0	Norfolk, Va.	Seattle, Wash	General	4,275	6,755	4,895
Shakespear	15	7 00	15	9.40	15	16.16	15	17.25	British	Shakespear Shipping Co.	407.0	53.5	13 8	Habana, Cuba	Vancouver, B. C.	Ballast		6,037	4,510
India Arrow [1]	15	10.15	15	10.25	15	16.52	15	18.00	American	Standard Transp. Co.	468 3	62.7	19.10	Boston, Mass	Los Angeles, Calif.	Ballast		10,084	7,426
Isis [9]	13	16 45	15	10 45	15	18.05	16	15.35	German	Hamburg-American Line	376 0	51 0	22 3	Hamburg, Germany	Valparaiso, Chile	General	44,32	5,788	4,027
Aleksandar I	15	10 25	15	11 20	15	19.19	15	19.53	Yugoslav	Baburizza & Co.	423 0	56.0	15.0	Rotterdam, Holland	Valparaiso, Chile	Ballast		6,561	4,701
Abron	15	13 55	15	14 10	15	20.55	16	8.02	American	Redwood Line	381.0	52.0	21.2	New Orleans, La	San Francisco, Cal.	General	4,200	5,732	4,131
Bethore	14	13 50	15	14.15	15	21.55	15	23.05	American	Ore S. S. Corp	550 0	72.0	20.3	Newport News, Va	Cruz Grande, Chile	Ballast		15,476	4,354
Tatsuno Maru	15	15 16	15	17 18	16	9.16	16	10.35	Japanese	Nippon Yusen Kaisha	445 0	58 0	24.0	Baltimore, Md	Kobe, Japan	([11])	7,112	8,015	5,716
President Wilson	16	6 12	16	6.50	16	13.21	16	21.02	American	Dollar Line	516 0	72 0	28 0	New York, N. Y.	Around the world	General	4,639	15,286	10,533
Zacharias	16	6 18	16	8 00	16	14.48	16	16.00	Greek	G. Z. Lykiardopulo	390.0	50.0	16.0	River Tyne, Eng	Arica, Chile	Ballast		6,006	4,287
Willfaro	16	8 30	16	8 40	16	16 44	16	19.55	American	Williams S. S. Line	386.8	52.2	21.0	Baltimore, Md	Tacoma, Wash	General	5,292	5,684	4,070
Illinois	16	10 15	16	10 35	16	17 20	16	19.10	American	Texas S. S. Co.	416.8	56.1	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,150	5,320
Leon XIII	15	9 50	16	12 02	16	18.20	16	19.10	Spanish	Comp. Trans. de Barcel.	410 0	46 5	22.0	Barcelona, Spain	Valparaiso, Chile	General	347	5,521	3,729
Plow City	16	13.10	16	13 20	16	19 43	16	21.02	American	Charles Nelson & Co.	324 0	46.2	20 0	Baltimore, Md	Seattle, Wash	General	3,800	3,983	2,631
Ashwerth	16	16.12	16	16 30	17	9 24	17	11.28	British	R. S. Dalgliesh	400 0	52 3	15.0	Newcastle-on-Tyne	Mejillones, Chile	Ballast		5,732	3,991
Stanley	16	16 00	16	20.50	17	11 25	17	14.45	American	Roosevelt S. S. Co., S. B.	401 0	54.6	21.0	New York, N. Y.	Shanghai, China	Kerosene, tobacco	4,845	6,933	5,187
Cauca [9]	8	18.05	17	6 07	17	14 07	17	20.05	Colombian	National Nav. Co.	107 2	22 0	11 8	Cristobal, C. Z	Buenaventura, Col.	General	380	238	164
Stella	14	17 40	17	6 10	17	14.50	17	15.55	Norwegian	Panama Mail S. S. Co.	195 0	32.1	16 7	Cristobal, C. Z	Champerico, Guat	General	1,117	985	606
Saint Jean	16	8.05	17	6 08	17	13.12	17	14.25	French	French Line	397 0	50.3	20 3	Havre, France	Talcahuano, Chile	General	107	5,849	4,101
Firby	16	20 40	17	7 25	17	15 06	17	16.15	British	Sir. R. Ropner & Co	390.0	55.0	15.0	Newcastle-on-Tyne	Vancouver, B. C.	Ballast		5,929	4,283
Athelmonarch [9]	16	21 05	17	7 25	17	14 47	17	15 55	British	United Molasses Co.	475.0	63 3	25 0	Beaumont, Texas	Yebisu, Japan	Crude oil	9,244		
Clydebank [9]	16	22 40	17	8 25	17	15 40	17	19.00	British	Andrew Weir & Co.	420.0	54.0	25 9	Tampa, Fla	Osaka, Japan	Cotton, phos'tes	7,328	7,101	5,018
Kirkpool	17	2 10	17	8 55	17	16 14	17	17 20	British	Pool Shipping Co	404 0	53 0	16.0	Norfolk, Va.	Vancouver, B. C.	Ballast		5,823	4,233
Manizales	11	21 03	17	8 55	17	17 04	17	18 09	German	North German Lloyd	210 0	33.0	13 0	Cristobal, C. Z.	Buenaventura, Col.	General	391	1,132	741
Stanford [9]	17	6.30	17	10 00	17	17.34	18	00 35	Norwegian	J. B. Slang	387 8	54.2	21.0	Antwerp, Belgium	Buenaventura, Col.	General	5,855	6,580	4,828
King John [9]	17	9 10	17	9.55	17	18 06	17	21.27	British	Dodd, Thomson & Co.	416.0	55.0	16.0	Falmouth, England	Vancouver, B. C.	Ballast		6,284	4,335
Almelo	16	12 05	17	10 50	17	18 25	18	13.25	Dutch	Royal Neth. S. S. Co.	440 0	62.6	23 3	Hamburg, Germany	Corral, Chile	General	4,848	9,403	6,653
Dean Emery [1]	17	11.10	17	11 40	17	18 59	17	20.05	American	Houstoca Pet. Co	429 3	59 2	21 0	Baltimore, Md	Los Angeles, Calif.	Ballast		7,709	5,517
Santa Isabel	17	9 35	17	13.24	17	20.05	17	21 25	American	Isthmian S. S. Lines	251.0	43.6	25.0	Baltimore, Md.	Kahului, T. H.	([12])	3,234	2,823	1,740

[9] Transport. [10] Automobiles, steel, and general. [11] Cotton, steel, tobacco, and general. [12] Tinplate, steel, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

W. S. Rheem [1]	11	1.25	11	6.10	11	14.40	11	18 40	American	Standard Oil Co. of Cal.	500 0	58 2	28 8	Los Angeles, Calif.	London, England	Gasoline	13,800	11,224	7,895
Jason	11	2.10	11	7 10	11	15 09	11	21 05	Dutch	Royal Neth. S. S. Co.	350 6	48 6	22 0	Coquimbo, Chile	Europe	Nitrates, general	4,629	4,321	3,120
Orita	11	00.10	11	8 05	11	15.45	11	20.15	British	Pacific Steam Nav. Co.	485.0	58.0	32.1	Magallanes, Chile	Liverpool, England	General	7,906	9,936	6,561
Dosina	11	4.05	11	8.48	11	16.35	11	18.30	Dutch	Anglo-Saxon Pet. Co.	400.3	52.5	23.7	San Francisco, Cal.	Curacao, D. W. I.	Stove oil	7,046	5,912	3,657

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Manizales	11	13 30	11	14 12	11	21 00	17	8 55	German	North German Lloyd	216 5	33 0	11 6	Guayaquil, Ecuador	Cristobal, C. Z	General	301	1,132	741
Counsellor	11	14 40	11	15 04	12	11 30	12	16 35	British	T. & J. Harrison	395 5	52 5	23 0	Portland, Oreg	Liverpool, England	General	6,549	5,753	3,857
Sunbeam [1]	12	4 30	12	6 07	12	14 20	12	14 20	American	Sun Oil Co	429 3	59 2	26 0	Los Angeles, Calif	Philadelphia, Pa	Gasoline	9,302	7,709	5,562
Mineola	11	23 50	12	6 22	12	15 30	12	17 30	American	N. O. & S. A. S. S. Co	298 6	40 0	21 0	Callao, Peru	New Orleans, La	Nitrates	3,580	2,835	1,805
Schwarzwald	12	1 37	12	7 16	12	16 10	14	1 42	German	Hamburg-American Line	399 6	44 0	26 8	Valparaiso, Chile	Hamburg, Germany	General	8,019	6,571	4,607
Dunstaffnage	12	3 20	12	8 20	12	16 50	12	17 20	British	Wessel, Duval & Co	384 4	52 0	24 0	Caleta Colosa, Chile	Jacksonville, Fla	Nitrates	7,327	5,173	3,651
Ebro	12	3 40	12	8 56	12	17 10	12	23 25	British	Pacific Steam Nav. Co	450 3	56 8	25 0	Talcahuano, Chile	New York, N. Y	General	3,320	9,291	6,301
Parana	12	8 10	12	9 30	12	17 50	12	18 25	British	Royal Mail S. P. Co	375 3	48 3	20 0	Seattle, Wash	Hamburg, Germany	Apples, prunes	2,175	4,717	3,359
Pilar de Larrinaga	12	13 32	12	14 04	12	21 15	12	22 55	British	Larrinaga & Co	445 0	58 1	26 0	Portland, Oreg	Antwerp, Belgium	Grain, lumber	9,504	7,643	5,562
Millinocket	12	14 20	12	14 52	12	22 15	13	1 03	American	N. O. & S. A. S. S. Co	311 0	44 2	22 3	Antofagasta, Chile	New Orleans, La	([14])	4,383	3,545	2,562
Royal Arrow [1]	12	15 30	13	6 08	13	13 35	13	13 35	American	Standard Transp. Co	467 6	62 7	....	Los Angeles, Calif	New York, N. Y	Gasoline	11,271	....	....
Pat Doheny [1]	13	3 00	13	6 45	13	14 05	13	19 35	American	Richfield Oil Co	430 2	59 2	26 6	Los Angeles, Calif	New York, N. Y	Gasoline	9,460	7,978	5,840
Bantu	13	3 30	13	7 25	13	15 25	13	19 25	American	Norton, Lilly & Co	360 0	47 0	24 0	Seattle, Wash	Philadelphia, Pa	General	4,491	4,607	3,032
Nebraskan	13	3 52	13	8 03	13	16 15	13	16 15	American	Amer.-Hawaiian Line	471 0	59 2	26 9	Portland, Oreg	Boston, Mass	General	7,506	9,032	6,655
Kentuckian	13	6 50	13	8 24	13	16 40	13	16 40	American	Amer.-Hawaiian Line	414 5	53 7	27 3	San Francisco, Cal	Boston, Mass	General	5,795	7,049	4,941
San Manuel [1]	13	10 20	13	11 07	13	19 14	13	23 20	British	Eagle Oil Transp. Co	407 0	52 3	25 3	San Francisco, Cal	Lizard Head, Eng	Gasoline	7,446	6,183	4,343
Amerikaland [1]	13	14 20	13	16 29	14	11 45	14	11 45	Swedish	Ore S. S. Corp	561 0	72 0	33 8	Cruz Grande, Chile	Baltimore, Md	Iron ore	21,500	15,560	4,496
Sapelo [1]	12	12 45	14	6 24	14	13 55	14	14 40	American	U. S. Navy	461 6	60 0	28 0	Los Angeles, Calif	Guantanamo, Cuba	([15])	11,220	....	....
Lio [1] [13]	13	20 00	14	6 40	14	14 50	14	14 50	American	Standard Transp. Co	431 0	59 2	28 0	Los Angeles, Calif	New York, N. Y	Gasoline	9,429	7,486	5,112
Altair [1]	13	21 15	14	7 22	14	15 20	14	15 20	American	Standard Transp. Co	429 3	59 2	26 6	Los Angeles, Calif	New York, N. Y	Gasoline	10,006	7,695	5,402
Chiman [13]	13	20 00	14	6 58	14	14 59	..	....	Panaman	National Navigation Co	116 0	21 0	8 0	Buenaventura, Col	Cristobal, C. Z	Treasure	80	211	124
Lewis Luckenbach	13	22 30	14	7 45	14	16 30	14	16 30	American	Luckenbach Line	496 0	68 2	29 6	Portland, Oreg	Boston, Mass	Lumber, general	12,250	11,487	8,763
Maltran	13	23 30	14	8 25	14	17 20	14	17 20	American	Mallory Transport Co	334 0	48 0	23 4	Tacoma, Wash	New York, N. Y	Lumber	4,750	4,171	2,827
Stella [13]	14	5 00	14	8 27	14	17 40	17	6 10	Norwegian	Panama Mail S. S. Co	195 1	32 9	12 0	Champerico, Guat	Cristobal, C. Z	Coffee	55	985	606
Bradburn	14	1 00	14	9 21	14	17 55	14	19 40	British	Sir W. R. Smith & Sons	378 0	51 5	24 0	Portland, Oreg	Dublin, Ireland	Bulk wheat	7,201	5,297	3,787
Indian City	14	3 25	14	9 35	14	18 25	14	20 50	British	St. Just S. S. Co, Ltd	411 7	54 5	28 0	Vancouver, B. C	Antwerp, Belgium	Wheat, lumber	8,600	6,512	4,665
Pacific Cedar	14	4 37	14	10 04	14	19 08	14	23 05	American	Dimon S. S. Corp	399 4	54 7	24 0	Seattle, Wash	New York, N. Y	Lumber	8,509	6,138	4,354
Welsh City	14	6 40	14	10 43	14	19 40	14	23 45	British	Sir W. R. Smith & Sons	411 0	54 5	27 9	Vancouver, B. C	London, England	Wheat	9,020	6,956	5,133
Sutorpeo	14	11 00	14	11 42	14	19 55	14	19 55	American	Transmarine Lines	324 0	46 2	23 0	Everett, Wash	Port Newark, N. J	Lumber	3,285	3,984	2,612
S. C. T. Dodd [1]	14	11 10	14	11 56	14	20 30	14	20 30	American	Standard Oil Co. of Cal	425 0	57 2	27 6	San Francisco, Cal	New York, N. Y	Gasoline	9,730	7,481	4,975
Buenos Aires	14	7 45	14	12 22	14	21 15	15	20 45	Spanish	Spanish Line	407 0	48 0	24 0	Valparaiso, Chile	Barcelona, Spain	General	1,332	5,624	3,844
Canadian Runner	14	12 10	14	12 45	14	22 42	15	2 50	British	Can. Nat. Steamships	320 0	44 0	19 6	Victoria, B. C	Halifax, N. S	Lumber, general	2,654	3,169	2,022
Sugillenco	14	12 50	14	13 30	14	22 00	14	22 00	American	Transmarine Lines	324 0	46 2	23 0	Everett, Wash	Port Newark, N. J	Lumber	3,908	3,984	2,612
Hans Leonhardt [13]	14	12 50	14	13 58	14	23 40	15	12 50	German	Cia. Maritima Colom	233 0	36 1	14 6	Buenaventura, Col	Cristobal, C. Z	([16])	894	1,568	909
Point Reyes	14	13 29	14	14 09	14	23 05	14	23 05	American	Swayne & Hoyt	324 0	46 2	22 0	Portland, Oreg	New Orleans, La	([17])	3,489	3,984	2,617

[1] Tanker. [13] Motor ship. [14] Nitrates and antimony ore. [15] Navy stores and fuel oil. [16] Coffee, hides, rubber, cocoa, and ivory nuts. [17] Lumber, explosives, and general.

Wiegand	14	14.25	14	15.28	15	00.45	16	13.16	German	North German Lloyd	393.0	53.0	26.2	San Antonio, Chile	Hamburg, Germany	General	7,527	6,573	4,629
Trafalgar	14	23.52	15	6.43	15	14.50	15	16.40	British	Glen & Co	386.0	52.0	23.9	Valparaiso, Chile	Norfolk, Va	Nitrates	7,309	5,174	3,657
Honduras	15	00.30	15	7.39	15	16.30	16	11.40	French	French Line	404.9	51.7	25.6	Talcahuano, Chile	Havre, France	General	7,064	6,029	4,312
Eastern Knight	15	2.00	15	7.58	15	17.45	15	17.45	American	Arrow Line	415.0	56.0	29.0	Portland, Oreg	Jacksonville, Fla	[18]	9,317	7,643	5,657
Henry D. Whiton	15	3.20	15	8.36	15	18.20	15	18.20	American	Union Sulphur Co	356.0	51.6	26.0	Seattle, Wash	New York, N. Y.	Lumber	5,250	5,367	2,925
San Matco	15	8.05	15	10.11	15	19.05	16	16.05	American	United Fruit Co	315.2	44.2	19.4	San Francisco, Cal.	Port Limon, C. R.	Crude oil, gen'l.	569	3,496	2,141
Matrix [1]	15	16.30	16	5.57	16	13.55	16	20.45	French	Sinclair Oil Co	422.4	57.5	24.7	Long Beach, Calif.	Rouen, France	Gasoline	8,019	7,000	4,545
City of San Francisco [13]	15	16.26	16	6.39	16	15.10			Panaman	Panama Mail S. S. Co.	296 0	45.9	16.0	San Francisco, Cal.	Cristobal, C. Z	Coffee, general	435	3,848	2,606
Empirestar	15	16.50	16	7.10	16	16.10	16	17.25	British	Blue Star Line	423.4	56 0	24.1	Portland, Oreg	Buenos Aires, Arg	[19]	3,822	7,444	5,621
Pacific Shipper [13]	15	16.45	16	8.14	16	16.55	16	16.55	British	Furness, Withy & Co	420.0	58.0	26.9	Vancouver, B. C.	Glasgow, Scotland	General	7,853	7,982	5,858
Wentworth	16	5.10	16	8.36	16	17.30	16	17.30	British	R. S. Dalgliesh	400.0	52.3	24.0	San Francisco, Cal.	Avonmouth, Eng	Barley in bags.	7,065	5,721	4,058
Sabotawan	16	4.45	16	8.48	16	18.05	16	18.05	American	Redwood Line	386.8	52.2	23.6	San Francisco, Cal.	Mobile, Ala	Lumber, general.	6,435	5,708	4,138
Albingia	16	5.00	16	9.31	16	19.15	16	21.25	German	Hamburg-AmericanLine	376.0	51 0	22.6	Antofagasta, Chile.	Azores [20]	Nitrates	5,544	5,551	3,751
Witram	16	12.05	16	12.49	16	20.30	16	22.07	German	North German Lloyd	450.0	58 0	24.6	Vancouver, B. C.	Antwerp, Belgium	General	7,365	7,820	5,661
Panaman	16	13.00	16	13.43	16	20.40	16	20.40	American	Amer.-Hawaiian Line	407.7	53 7	28.9	Los Angeles, Calif.	New York, N. Y.	General	8,584	7,098	5,065
AnnieJohnson [13]	16	11.37	16	14.45	16	21.40	17	1.10	Swedish	Johnson Line	392.0	52 6	24.9	Vancouver, B. C.	Stockholm, Sweden	General	5,540	6,650	4,919
San Ugon [1]	17	2.30	17	6.10	17	14.15	17	19.20	British	Anglo-Mexican Pet. Co.	413.0	53.4	24.6	Los Angeles, Calif.	Lizard Head [20]	Gasoline	7,375	5,976	4,069
Mystic	16	17.50	17	6.35	17	15.10	17	15.10	American	Munson, McCor'k Line	400.7	54 2	27.6	Tacoma, Wash	Ponce, P. R.	Lumber, general.	6,280	6,633	4,668
West Montop	17	3.45	17	7.20	17	16.15	17	16.15	American	Calif. & East'n S. S. Co.	410.0	54 4	24.4	St. Helens, Oreg	Philadelphia, Pa	Lumber	7,632	6,484	4,675
Trojanstar	17	7.50	17	8.39	17	16.50	17	22.10	British	Blue Star Line	473.8	60.0	28.0	Vancouver, B. C.	Newcastle, Eng.	General	5,728	10,405	7,401
Mabriton	17	8.40	17	9.20	17	17.23	17	17.25	British	R. Chapman & Son	412.0	56.0	27.6	Vancouver, B. C.	London, England	Wheat	9,720	6,823	4,797
Ionic	17	6.22	17	12.09	17	19.25	17	22.10	British	Shaw, Savill & Albion	500 0	63.3	27.6	Auckland, N. Z.	London, England	Frozen, general	4,865	12,872	9,577
Grootendijk	17	4.30	17	14.57	17	22.50	18	10.29	Dutch	Holland-American Line	450.0	58.0	29.0	Vancouver, B. C.	Antwerp, Belgium	Grain, general	9,584	8,730	5,861

[1] Tanker. [13] Lumber, wheat, and copper. [19] Fruit and cold storage. [20] For orders.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
November 11	Calamares	United Fruit Co	Port Limon, Costa Rica.
November 12	Banan	United Fruit Co	Kingston, Jamaica.
November 12	Pastores	United Fruit Co	New York via Habana.
November 13	Philadelphian	Leyland Line	Liverpool via wayports.
November 14	Granada	Standard Fruit & S. S. Co	New Orleans, La. and wayports.
November 14	Coppename	United Fruit Co	New Orleans, La.
November 14	Sixaola	United Fruit Co	New York via Kingston.
November 15	Anachucuna [21]	United Fruit Co	Colon, R. P.
November 15	Saramacca	United Fruit Co	Bocas del Toro, R. P.
November 15	Puerto Rico	French Line	St. Nazaire and wayports.
November 16	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
November 16	William M. [22]	G. I. Bryan	Colon, R. P.
November 16	Linda S. [23]	Surgeon Brothers	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
November 11	Calamares	United Fruit Co	New York via Habana.
November 11	Ancon	Panama R. R. S. S. Line	New York via Haiti.
November 12	Manaqui	United Fruit Co	New York via Kingston.
November 12	Parismina	United Fruit Co	New Orleans and wayports.
November 13	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
November 14	Pastores	United Fruit Co	Port Limon, Costa Rica.
November 15	Anachucuna [21]	United Fruit Co	Colon, R. P.
November 15	Coppename	United Fruit Co	Porto Colombia and Bocas.
November 15	Sixaola	United Fruit Co	New York via wayports.
November 15	Banan	United Fruit Co	Perme, R. P.
November 15	Saramacca	United Fruit Co	New Orleans, La.
November 15	Philadelphian	Leyland Line	Galveston via Port Limon.
November 16	Granada	Standard Fruit & S. S. Co	New Orleans, La.
November 16	Puerto Rico	French Line	Havre via wayports.

[21] Motor boat. [22] Schooner. [23] Motor schooner. * Other than ships passing through the Canal.

(Continued on page 232, column 2.)

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Three Weeks Ending November 17, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cauca	National Navigation Co		October 28		382
Coppename	United Fruit Co		October 28		92
Seattle	Hamburg-American Line		October 28		462
Ecuador	Panama Mail S. S. Co		October 28		59
Aconcagua	Chilean Line		October 28		189
Theodore Roosevelt	Fred Olsen Line	October 28	October 28	(1)	274
Ulua	United Fruit Co	October 28	October 28	37	519
Chiman	National Navigation Co	October 29	November 2	(1)	348
Cristobal	Panama R. R. S. S. Line		October 29		1,151
Heredia	United Fruit Co		October 29		115
William M.	R. Feuillebois	October 29	October 29	(1)	31
Canadian Scottish	Canadian National Steamships	October 29	October 29	7	(2)
Brielle	Royal Netherlands S. S. Co	October 29	October 30	408	466
Wanks	Standard Fruit & S. S. Co	October 29	October 30	(1)	4
Notre Dame de Fourviere	French Line	October 29	October 30	224	124
Lautaro	Pacific Steam Navigation Co	October 29	October 29	2½	143
Toloa	United Fruit Co	October 29	October 31	908	25
Floreana	Colombian Transport Co		October 30		304
Perene	Peruvian Line	October 30	October 30	11½	120
City of Panama	Panama Mail S. S. Co		October 30		2,552
Guatemala	Panama Mail S. S. Co	October 30	October 31	141	300
Moveria	Donaldson Line	October 30	October 31	(1)	325
Illinois	French Line	October 30	November 1	1,061	215
Pellerin de Latouche	French Line	October 30	November 1	235	1,032
Suriname	United Fruit Co	October 31	October 31	870	57
Germar	North German Lloyd	October 31	October 31	(1)	75
Orinoco	Hamburg-American Line	October 31	October 31	125	(2)
Santa Marta	United Fruit Co	October 31	November 1	1,139	763
Kinderdijk	Holland-American Line	October 31	November 1	(1)	297
Cerigo	Hamburg-American Line	October 31		767	
Coppename	United Fruit Co	October 31	November 1	107	250
San Jose	United Fruit Co	November 1	November 2	1,143	109
Granada	Standard Fruit & S. S. Co	November 1	November 2	658	736
Uganda	McClay & McIntyre	November 1	November 3	1,196	(2)
Cali	Hamburg-American Line	November 1	November 3	257	267
Benjamin Franklin	Norway-Pacific Line	November 1	November 3	93	212
Canada	Johnson Line	November 2	November 2	(1)	225
Itauri	Hamburg-American Line	November 2	November 2	31	(2)
Pacific Exporter	Furness, Withy & Co	November 2	November 3	(1)	334
Wanks	Standard Fruit & S. S. Co	November 2		123	
Linda S.	R. Feuillebois	November 2	November 3	(1)	42
Mayari	United Fruit Co	November 2		369	
Spreewald	Hamburg-American Line	November 2	November 3	5	151
Cartago	United Fruit Co	November 3		852	
Orinoco	Hamburg-American Line	November 3	November 3	3	330
Nitokris	Hamburg-American Line	November 3	November 3	85	(2)
Alvarado	Pacific Steam Navigation Co	November 3	November 3	226	112
Toloa	United Fruit Co	November 4	November 4	28	525
Nevada	French Line	November 4	November 4	74	(2)
War Diwan	Anglo-Saxon Petroleum Co	November 4	November 5	3,306	(2)
Cartago	United Fruit Co		November 5		18
Wanks	Standard Fruit & S. S. Co		November 5		71
Santa Barbara	Grace Line	November 5	November 5	1	21
Taketoyo Maru	Nippon Yusen Kaisha	November 5	November 5	381	(2)
Buenaventura	Panama R. R. S. S. Line	November 5	November 6	288	8
Arana	Pacific Steam Navigation Co	November 5	November 6	312	14½
Denderah	Hamburg-American Line	November 5	November 6	590	1
Calamares	United Fruit Co	November 5	November 7	883	3½
Nitonian	Leyland Line	November 5	November 8	2,065	(2)
Urube	Estrada G. Hermanos	November 6		888	
Mayari	United Fruit Co		November 6		374
Eemdijk	Holland-American Line	November 6	November 8	822	187
Santa Tecla	N. O. & S. A. S. S. Line	November 7	November 7	49	127
Maravi	United Fruit Co	November 7	November 7	6	1,155
Stuyvesant	Royal Netherlands S. S. Co	November 7	November 7	91	(2)
Ucayali	Peruvian Line	November 7		2,043	
Ancon	Panama R. R. S. S. Line	November 7		4,389	
Saramacca	United Fruit Co	November 7	November 8	783	182
Metapan	United Fruit Co	November 7	November 8	593	722
Murla	North German Lloyd	November 7	November 8	422	121½
Gatun	Standard Fruit & S. S. Co	November 7	November 9	522	623
Nebraska	Royal Mail S. P. Co	November 8	November 8	47	(2)
Essequibo	Pacific Steam Navigation Co	November 8	November 9	43	(2)
Oropesa	Pacific Steam Navigation Co	November 8	November 9	84	82
Acajutla	Pacific Steam Navigation Co	November 8		187	
Alaska	French Line	November 8	November 8	188	58
Cellina	Nav. Libera-Triestina	November 8	November 8	182	(2)
Cauca	National Navigation Co	November 8		258	
Kina	Orient S. S. Co	November 8	November 8	(1)	25

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons*
Suriname	United Fruit Co	November 8	November 8	149	462
Limon	United Fruit Co	November 8	November 9	1,136	410
Cerigo	Hamburg-American Line		November 9		701
Earalt	Royal Netherlands S. S. Co	November 8	November 10	318	118
Annam	Danish East Asiatic Line	November 9	November 9	10	(2)
Hermion	Bruusgaard Kicsterud & Co	November 9	November 10	383	(2)
Guayaquil	Panama R. R. S. S. Line	November 9	November 10	669	493
West Katan	California & Eastern S. S. Line	November 9	November 10	480	(2)
Stuyvesant	Royal Netherlands S. S. Co	November 9	November 10	(1)	669
Wanks	Standard Fruit & S. S. Co	November 9		108	
Modavia	Donaldson Line	November 10	November 10	(2)	484
Mayebachi Maru	Nippon Yusen Kaisha	November 10		176	(2)
Managui	United Fruit Co	November 10	November 10	314	825
Norma	United Fruit Co	November 10	November 10	(2)	383
Venezuela	Panama Mail S. S. Co	November 10		473	
Parismina	United Fruit Co	November 10		752	
Salvador	Pacific Steam Navigation Co		November 10		1,141
Ancon	Panama R. R. S. S. Line		November 11		2,386
Calamares	United Fruit Co	November 11	November 11	28	521
Osiris	Hamburg-American Line	November 11	November 11	(2)	7
Jason	Royal Netherlands S. S. Co	November 11	November 11	143	(2)
Orita	Pacific Steam Navigation Co	November 11	November 11	9	49
Manizales	North German Lloyd	November 11	November 17	272½	262½
Ebro	Pacific Steam Navigation Co	November 12	November 12	9	238
Ucayali	Peruvian Line		November 12		137½
Venezuela	Panama Mail S. S. Co		November 12		460
Parismina	United Fruit Co		November 12		212
Magellan	Pacific Steam Navigation Co	November 12	November 13	279	49
Schwarzwald	Hamburg-American Line	November 12	November 13	69	167
Wanks	Standard Fruit Co		November 13		6½
Pastores	United Fruit Co	November 12	November 14	1,242	12
Acajutla	Pacific Steam Navigation Co		November 14		1,126½
Saint Joseph	French Line	November 13	November 14	163	12
Isis	Hamburg-American Line	November 13	November 15	28	367
Philadelphian	Leyland Line	November 13	November 15	1,134	(2)
Coppename	United Fruit Co	November 14	November 15	1,091	87
Hans Leonhardt	Colombian Transport Co	November 14	November 15	169	(2)
Buenos Aires	Spanish Line	November 14	November 15	108	305
Sivaola	United Fruit Co	November 14	November 15	634	845
Wiegand	Roland Line	November 14	November 15	2	140
Saramacca	United Fruit Co	November 15	November 15	16	578
Granada	Standard Fruit Co	November 14	November 16	492	703
Stella	Panama Mail S. S. Co	November 14	November 17	60	1,140
Leon XIII	Spanish Line	November 15	November 16	228	(2)
San Mateo	United Fruit Co	November 15	November 16	865	162
Puerto Rico	French Line	November 15	November 16	159	928
Honduras	French Line	November 15	November 16	623	(2)
Saint Jean	French Line	November 16	November 17	208	331
Annie Johnson	Johnson Line	November 16	November 16	(1)	15
William M.	R. Feuillebois	November 16	November 16	(1)	30
Linda S.	R. Feuillebois	November 16	November 16	(1)	30
City of San Francisco	Panama Mail S. S. Co	November 16		435	
Wanks	Standard Fruit Co	November 16		120	
Almelo	Royal Netherlands S. S. Co	November 16	November 17	244	229
Cauca	National Navigation Co		November 17		379
Grootendijk	Holland-American Line	November 17		20½	
Kotonia	Isbrandtsen-Moller Co	November 17		560	
Banan	United Fruit Co	November 17	November 17	(1)	530

[1] No cargo discharged. [2] No cargo laded.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 13 years of operation.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Hours of Departure of Passenger Trains.

Following are the hours of departure of the regular passenger trains of the Panama Railroad running between the Atlantic and the Pacific:

From Colon: Daily except Sunday, 7.00 a. m., 12.15 p. m., 4.30 p. m.; Sunday only, 9.20 a. m., 4.00 p. m.

From Panama: Daily except Sunday, 7.05 a. m., 12.20 p. m., 4.35 p. m.; Sunday only, 7.05 a. m., 6.15 p. m.

The time required for passage from one terminal to the other is 1 hour and 45 minutes.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners forming binders for THE PANAMA CANAL RECORD are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 229.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

Date.	Vessel.	Line.	From—
November 16	Galveston	U. S. Navy	High seas.
November 17	Banan	United Fruit Co	Perme, R. P.
November 17	Anachueuna [21]	United Fruit Co	Colon, R. P.
November 17	Kotonia	Isbrandtsen Moller & Co	Puerto Mexico and way-ports.
November 16	San Mateo	United Fruit Co	High seas.

[21] Motor bnat. [22] Schooner.

* DEPARTURES.

Date.	Vessel.	Line.	For—
November 16	Linda S. [23]	Surgeon Brothers	Bluefields and wayports.
November 16	William M. [22]	G. I. Bryan	Bluefields.
November 17	Anachueuta [21]	United Fruit Co	Colon, R. P.
November 17	Galveston	U. S. Navy	High seas.
November 17	Banan	United Fruit Co	Mobile, Ala.
November 17	San Mateo	United Fruit Co	Port Limon, Costa Rica.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
November 11	San Luis [24]	Chiriqui Land Co	Puerto Armuelles, R. P.
November 13	Cricamola [25]	Chiriqui Land Co	Puerto Armuelles, R. P.
November 13	Litiopa	Anglo-Saxon Petroleum Co.	Los Angeles, Calif.
November 13	El Colon [24]	H. Elliot	El Real, R. P.
November 14	Mojave	General Petroleum Co	Los Angeles, Calif.
November 14	Almirante [24]	A. Valdez	Bayano River, R. P.
November 15	Martha [25]	Chr. Hannevig	Puerto Armuelles, R. P.

Date.	Vessel.	Line.	For—
November 12	San Luis [24]	Chiriqui Land Co	Puerto Armuelles, R. P.
November 14	Cricamola [25]	Chiriqui Land Co	Puerto Armuelles, R. P.
November 14	El Colon [24]	H. Elliot	El Real, R. P.
November 15	Litiopa	Anglo-Saxon Petroleum Co.	Los Angeles, Calif.
November 15	Mojave	General Petroleum Co	Los Angeles, Calif.
November 15	Almirante [24]	A. Valdez	Bayano River, R. P.
November 17	Martha [25]	Chr. Hannevig	Puerto Armuelles, R. P.

[24] Motor schooner. [25] Motor ship.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

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Supplement No. 9—Tariff No. 9.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., *November 17, 1928.*

ITEM 9.—HANDLING LINES.

Substitute the following:

1. For each man furnished by The Panama Canal on board vessels for the purpose of handling lines and locomotive wires on board such vessels, to promote their safety while being passed through the locks, charge will be made as follows:

Complete transit of Canal—	
24 hours or less	$4.00
Each additional 12-hour period or fraction thereof	2.00
Partial transit of Canal—	
Between Cristobal and Gatun Lake	2.00
Between Cristobal and Paraiso mooring	3.00
Between Balboa and Paraiso mooring	2.00
Between Balboa and Gatun Lake	3.00
Between Paraiso mooring and Gatun Lake	2.50
From Cristobal to Gatun Lake, remain aboard vessel, and return to Cristobal	4.00
Boarding vessel and debarking without making transit on account of vessel failing to start through the Canal for reasons other than the fault of The Panama Canal	1.50

2. For each man furnished by The Panama Canal on board vessels, to provide a sufficient number of handle lines when necessary to shift vessels from one dock or berth to another.....per job.. 2.00
3. No charge will be made for handling lines at docks on the arrival or departure of a vessel, but, whenever launch service is used in connection with tying up a vessel, a charge will be made for launch service at rates fixed in this tariff.
4. Subsistence of seamen handling lines will be furnished by vessels and, where vessels have not the facilities to furnish subsistence, the necessary meals will be provided by The Panama Canal for account of the vessel at the following rates:

For seamen handling lines.....each, per meal..	0.30
For gold employees.....each, per meal..	0.50

H. BURGESS,
Governor, The Panama Canal.
President, Panama Railroad Company.

New Motor Ships for the New Zealand Shipping Company.

It is reported that the *Rangitiki*, first of the three passenger and cargo motor vessels of 17,500 gross tons, which are being built at Clydebank for the New Zealand Shipping Co., will sail from Southampton on February 15, 1929, on her maiden voyage to New Zealand, via the Panama Canal. The two remaining vessels will sail in September and October next. These vessels will have accommodations for first, second, and third class passengers and will have 425,000 cubic feet available for refrigerated cargo and 150,000 cubic feet for general cargo.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, November 24, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Lavington Court	17	18.30	18	6.10	18	13.48	18	15.15	British	Haldin and Co	420.0	54.0	14.0	Cardiff, England	Vancouver, B. C.	Ballast		6,833	4,953
Boulderpool	17	18.45	18	6.20	18	13.10	18	14.20	British	Earl, Stod't & Clayton	405.0	53.6	14.0	Middlesboro, Eng.	Vancouver, B. C.	Ballast		5,802	4,203
Kansan	18	00.40	18	7.58	18	14.05	18	15.15	American	Amer.-Hawaiian Line	404.6	53.9	19.6	Boston, Mass.	Portland, Oreg.	General	4,072	6,779	4,927
Acacia [2]	17	19.45	18	9.30	18	16.38			American	U. S. Government	172.0	32.0	11.6	San Juan, P. R.	Balboa, C. Z.	Ballast			
Bullmouth [2 3]	18	9.45	18	10.00	18	16.40	18	19.30	British	Anglo-Saxon Pet. Co	452.0	59.0	19.0	Ornskoldsvik, Swed.	Los Angeles, Calif.	Ballast		8,036	5,005
Marore	18	11.00	18	15.02	18	22.40	18	23.53	American	Ore S. S. Corp	550.3	72.2	21.0	Baltimore, Md.	Cruz Grande, Chile	Ballast		15,551	4,297
Ruapehu	18	10.20	18	17.15	19	9.36	19	14.45	British	N. Z. Shipping Co	457.0	58.0	29.4	London, England	N. Plymouth, N. Z.	General	4,868	9,079	6,798
Paul Shoup [2]	18	18.40	18	20.05	19	11.17	19	12.25	American	Atlantic Refining Co	424.4	58.2	22.0	Philadelphia, Pa.	San Francisco, Cal.	Ballast		7,333	5,182
Willowpool	18	19.30	19	6.10	19	12.58	19	14.25	British	J. W. Mitchell	390.0	55.5	15.6	River Tyne, Eng.	Vancouver, B. C.	Ballast		5,898	4,321
Lancaster	18	20.47	19	6.20	19	13.50	19	15.00	American	Argonaut S. S. Line	434.3	57.7	27.0	Baltimore, Md.	Tacoma, Wash.	Steel, general	8,605	7,935	5,841
San Mateo	19	6.20	19	7.30	19	14.12	19	15.15	American	United Fruit Co	315.2	44.2	19.6	Port Limon, C. R.	San Francisco, Cal.	Coffee, bananas	857¾	3,496	2,141
Winton [3]	18	15.18	19	9.10	19	15.49	20	4.00	British	Avenue Shipping Co	375.0	53.0	21.0	New York, N. Y.	Sydney, Australia	General	5,438	6,295	4,663
Carica Milica	19	11.25	19	13.20	19	20.07	19	22.25	Yugoslav	Racie S. S. Co	425.0	56.0	26.0	Blyth, England	Iquique, Chile	Coal		7,900	7,079	5,105
Hartbridge	19	14.15	19	14.25	19	21.22	20	1.25	British	N. of England S. S. Co.	390.0	55.0	15.6	Norfolk, Va	Vancouver, B. C.	Ballast			6,179	4,521
Chilore	17	7.05	19	16.45	20	10.03	20	11.16	American	Ore S. S. Corp	549.0	72.0	22.4	Norfolk, Va	Cruz Grande, Chile	Ballast		14,538	9,348
Cid	18	00.50	20	6.18	20	16.12	20	22.40	British	Pacific Steam Nav. Co	264.8	41.2	15.6	New York, N. Y.	Guayaquil, Ecuador	(6)	916	2,746	1,626
Pear Branch	19	15.58	20	6.15	20	16.26	20	17.35	British	F. & W. Ritson	398.6	53.8	20.0	London, England	Corral, Chile	General	3,251½	5,760	3,866
Chincha	19	17.15	20	7.15	20	17.29	20	18.45	American	Isthmian S. S. Lines	405.0	52.4	26.1	New York, N. Y.	Vancouver, B. C.	Steel, general	7,308	6,872	4,973
Thirlby	19	23.25	20	7.25	20	18.20	20	19.24	British	Empire Shipping Co	405.0	53.5	16.0	Newcastle-on-Tyne	Vancouver, B. C.	Ballast		5,873	4,292
Yankee Arrow [1]	19	23.30	20	8.20	20	18.50	20	20.13	American	Standard Transp. Co.	468.0	62.6	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,341	6,946
Glittre [1 3]	20	6.55	20	10.20	20	19.10	20	22.40	Norwegian	Fearnley & Eger	408.3	55.3	19.3	Malmo, Sweden	Los Angeles, Calif.	Ballast		6,522	4,389
Inkum	20	12.55	20	13.30	20	20.45	20	22.05	British	Com'lth & Dom. Line	400.0	52.0	21.0	New York, N. Y.	Fremantle, Aust'lia.	General	3,950	6,067	4,499
Gen. Wm. M. Graham [1]			20	9.25	20	17.24			American	U. S. Army	156.0	32.0		Cristobal, C. Z	Balboa, C. Z				
Vega [5]	20	4.15	21	6.00	21	12.52	21	17.35	American	U. S. Navy	390.0	54.0	19.10	Norfolk, Va	Bremerton, Wash.	General	2,957		
August Leonhardt	20	12.40	21	6.10	21	13.40	21	15.30	German	Colombian Marit. Co	328.0	46.0	13.11	New York, N. Y.	Buenaventura, Col.	General, cattle	540	3,724	2,817
William McAllum	20	12.20	21	7.15	21	14.24	21	15.20	Greek	R. Kulukundis	400.0	51.0	15.0	Amst'dam, Holland	Iquique, Chile	Ballast		6,141	4,591
Shikisan Maru [1]	20	13.45	21	7.05	21	15.18	21	19.10	Japanese	Mitsui & Co	402.0	53.0	24.0	Newcastle-on-Tyne	Puget Sound, Wash.	(7)	7,000		
Steel Worker	21	8.00	21	8.20	21	15.49	21	19.50	American	Isthmian S. S. Lines	424.0	56.0	25.0	Mobile, Ala.	Yokohama, Japan	General	7,844	7,611	5,497
Katrina Luckenbach	21	9.25	21	10.00	21	16.36	21	17.35	American	Luckenbach Line	446.0	56.0	27.8	New York, N. Y.	Los Angeles, Calif.	General		5,180	8,508	6,179
Aconcagua	21	2.25	21	11.55	21	17.54	21	19.00	Chilean	South American Line	421.0	56.2	24.6	New York, N. Y.	Valparaiso, Chile	General		2,324	7,764	4,705
Kanawha [1]	18	14.20	21	12.15	21	19.18	21	20.25	American	U. S. Navy	455.0	56.0	23.4	Cristobal, C. Z.	Corinto, Nicaragua					
King Neptune [3]	21	16.40	21	17.40	22	9.02	22	13.15	British	Dodd, Thomson & Co.	400.0	54.8	15.0	Belfast, Ireland	Portland, Oreg.	Ballast		6,279	4,336
Manukai	21	17.20	21	18.00	22	11.20	22	12.15	American	Amer.-Hawaiian Line	480.0	62.0	24.0	New York, N. Y.	San Francisco, Cal.	General		4,033.10	7,316	7,561

[1] Tanker. [2] Lighthouse tender. [3] Motor ship. [4] Mine planter. [5] Supply ship. [6] Automobiles, steel, and cotton. [7] Coke and silver sand.

Leda [1]	21	18.30	22	6.10	22	13.04	22	18.30	Danzig	Standard Shipping Co.	470.0	63.0	19.0	New York, N. Y.	Talara, Peru	Ballast		9,346	6,063
Chief Skidegate	21	20.15	22	6.25	22	14.08	22	15.35	British	Can.-Amer. Ship. Co.	483.6	57.0	21.0	Rotterdam,Holland	Vancouver, B. C.	Ballast		10,011	7,278
Royal Prince	22	5.55	22	7.45	22	16.57	22	18.10	British	Furness, Withy & Co.	450.4	58.0	23.0	Newport News,Va.	Manila, Philippines	General	5,502	8,594	6,089
Tamaroa	22	7.00	22	7.45	22	15.04	23	7.15	British	Shaw, Savill & Albion	500.4	63.0	25.0	London, England	Auckland, N. Z.	General	4,546	13,592	9,383
Selvistan	22	6.30	22	9.50	22	17.52	22	21.17	British	Common Brothers	390.0	53.6	15.0	So. Shields, Eng.	Vancouver, B. C.	Ballast		5,619	4,127
Enos	22	6.35	22	10.45	22	18.40	22	19.53	Greek	Rettemmis&Kulukundis	360.6	48.0	13.0	Cardiff, England	Arica, Chile	Ballast		4,711	3,478
Blythmoor	22	10.40	22	11.05	22	19.56	23	00.38	British	J. Steward Grain Co.	420.0	54.0	16.1	Newcastle-on-Tyne	Vancouver, B. C.	Ballast		6,963	5,008
Orbita	22	6.45	22	13.55	22	20.35	23	4.47	British	Pacific Steam Nav. Co.	550.3	67.3	27.10	Liverpool, England	Talcahuano, Chile	General	4,175	16,844	11,731
Portland [3]	21	11.00	22	15.12	22	21.37	22	22.40	German	Hamburg-AmericanLine	462.0	61.2	24.9	Hamburg,Germany	Vancouver, B. C.	General, bananas	6,592	9,139	6,666
Steelore	21	16.10	22	16.40	23	9.15	23	10.39	American	Ore S. S. Corp.	550.0	72.0	21.5	Newport News, Va.	Cruz Grande, Chile	Ballast		15,551	4,297
Virgilio [3]	22	6.10	23	6.15	23	12.38	23	20.45	Italian	Nav. Gen. Italiana	484.0	61.8	24.3	Genoa, Italy	Valparaiso, Chile	General	1,615	12,941	9,329
California	23	6.30	23	7.15	23	14.02	23	24.00	American	Panama-Pacific Line	574.4	80.3	28.0	New York, N. Y.	San Francisco, Cal.	General	2,775	24,506	17,565
Sheafmead	22	17.10	23	7.15	23	15.10	23	16.45	British	Can. Nat. Steamships	380.0	53.0	19.8	Montreal, Canada	Adelaide, Australia	General	3,000	5,326	4,008
Oregonian	23	1.45	23	8.45	23	15.31	23	16.45	American	Amer.-Hawaiian Line	404.6	54.0	21.0	Boston, Mass.	Seattle, Wash.	General	3,806	6,754	4,800
Ara [8]	22	23.50	23	9.55	23	16.00	24	14.10	American	W. K. Vanderbilt	195.4	31.6	15.0	Miami, Florida	Honolulu, T. H.	Ballast		869	418
Ionicstar	23	6.15	23	9.55	23	17.04	23	22.38	British	Blue Star Line	389.5	53.0	17.6	So. Shields, Eng.	Vancouver, B. C.	Ballast			
Nariva	22	15.25	23	12.25	23	19.06	23	20.05	British	Royal Mail S. P. Co.	430.0	61.0	26.2	Newport, England	Portland, Oreg.	General	1,808	9,319	5,854
West Camargo	23	5.25	23	13.20	23	20.15	23	21.25	American	McCormick S. S. Co.	410.5	54.0	18.8	Buenos Aires, Arg.	Vancouver, B. C.	General	2,279	6,624	5,040
Lightburne [1]	23	12.15	23	13.55	23	20.41	23	21.45	American	Texas S. S. Co.	417.0	56.0	19.0	Providence, R. I.	Los Angeles, Calif.	Ballast			
Cleveland [9]	22	10.00	23	14.20	23	21.23			American	U. S. Navy	292.0	44.0	18.0	Nicaragua	Balboa, C. Z.				
Falsterbo [3]	23	15.10	23	18.50	24	9.10	24	10.28	Swedish	W. L. Comyn & Co.	394.0	50.0	23.0	Antwerp, Belgium	Seattle, Wash.	Sand and rags	6,199½	4,917	3,528
Pacific Pioneer [3]	21	14.45	24	6.10	24	12.50	24	14.10	British	Furness, Withy & Co.	435.0	60.1	19.10	Glasgow-England	Vancouver, B. C.	General, bananas	1,850½	9,630	6,943
Baarn	22	10.30	24	6.20	24	13.34	24	23.15	Dutch	Royal Neth. S. S. Co.	400.0	58.0	20.6	Hamburg,Germany	Corral, Chile	General	2,914	7,819	6,101
Chiman [3]	14	14.59	24	6.10	24	15.05	24	18.10	Panaman	National NavigationCo.	116.0	21.0	8.6	Cristobal, C. Z.	Buenaventura, Col.	General	305	211	124
Pacific	24	1.45	24	7.15	24	15.09	24	16.30	Danish	Overseas Trading Co.	367.0	50.0	26.0	Pt. Arthur, Texas.	Hongkong, China.	Case oil	8,150	5,782	4,508
Tuscaloosa City	24	3.10	24	7.35	24	15.56	24	17.30	American	Isthmian S. S. Lines	424.2	56.2	23.0	New York, N. Y.	Shanghai, China.	General	7,388	6,611	5,450
Flensburg	24	6.25	24	8.25	24	16.50	24	17.55	Dutch	Can.-Amer. Ship. Co.	454.0	60.0	17.0	Antwerp, Belgium	Vancouver,B. C.	Ballast		8,066	5,396
Pearlmoor	24	8.15	24	8.40	24	17.46	24	18.49	British	W. Runciman & Co.	400.3	52.1	15.2	Newcastle, Eng.	San Francisco, Cal.	Ballast		6,040	4,357
El Lobo [1]	24	9.40	24	10.00	24	17.05	24	18.30	British	C. T. Bowring & Co.	385.2	51.0	17.6	Philadelphia, Pa.	La Libertad, Ecud'r	Ballast		4,851	3,326
Elkhorn	24	10.20	24	10.40	24	18.02	24	21.20	American	Tampa Interocean Co.	402.0	54.0	24.0	Galveston, Texas	Shanghai, China	General	6,811		
Wray Castle	24	7.55	24	11.25	24	18.45	24	20.15	British	Barber S. S. Line	419.0	55.8	24.3	New York, N. Y.	Hongkong, China.	General	7,000	6,861	5,016
Georgie	24	8.20	24	12.36	24	19.48	24	21.20	French	French Line	410.0	52.0	21.0	Havre, France	Vancouver, B. C.	General	3,100	6,830	4,932
Tashmoo	24	11.10	24	12.40	24	20.28	24	22.10	American	Charles Nelson & Co.	285.0	42.0	17.6	Charleston, S. C.	Seattle, Wash.	General	2,500	3,984	2,628
Andalusia	24	12.55	24	14.55	24	22.06	25	00.55	Italian	D. Tripcovich	385.0	50.0	15.0	Penarth, England	Arica, Chile	Ballast			
Wayfarer	23	11.05	24	16.35	25	9.27	25	10.35	British	T. & J. Harrison	395.5	52.0	19.0	Liverpool, England	Vancouver, B. C.	General		5,728	3,855
Key West	24	18.50	24	20.35	25	10.19	25	14.40	Norwegian	Scand.-So. Pacific Co.	381.4	53.2	24.8	Gothenburg, Swed.	Corral, Chile	General	5,925	5,585	4,157
Tut [10]			24		24	12.48			American	J. J. Burton				Cristobal, C. Z.	Gatun, C. Z.	Ballast		1	1
Superior [11]			24		24	12.48			American	F. R. Mauldin				Cristobal, C. Z.	Gatun, C. Z.	Ballast		2	2

[1] Tanker. [3] Yacht. [9] Cruiser. [10] Launch. [11] Sail boat.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Kanawha [1]	17	15.00	18	6.30	18	14.20	21	12.15	American	U. S. Navy	475.7	56.2	27.0	Los Angeles, Calif.	Cristobal, C. Z.	([13])	6,636		
William H. Doheny [1]	18	4.00	18	6.55	18	14.45	18	14.45	American	Pan.-Amer.Pet.&Tr.Co.	435.0	56.2	26.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,400	7,406	5,111
Cobetas	17	19.00	18	8.01	18	15.55	18	15.55	Spanish	Cia. Naviera Vascong'a.	360.0	49.9	24.3	Caleta Buena,Chile	Europe	Nitrates	6,100	4,460	3,090
Carolyn	17	20.00	18	8.44	18	16.18	18	16.18	American	Grace Line	313.6	46.1	25.9	Antofagasta, Chile.	New York, N. Y.	Copper, nitrates	4,448	3,644	2,566
Jersey City	18	7.55	18	9.13	18	17.25	18	22.50	British	Sir. W. R. Smith & Sons.	427.0	55.0	27.7	Vancouver, B. C.	Falmouth, Eng. [12]	Wheat	9,130	6,954	5,005
Raranga	18	10.20	18	11.03	18	18.40	18	18.40	British	Shaw, Savill & Albion.	478.0	63.2	27.8	Vancouver, B. C.	London, England	Frozen, general.	8,210	11,070	7,931

[1] Tanker. [12] For orders. [13] Crude oil, Diesel oil, and gasoline.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Quebec City	18	12.30	18	13.20	18	20.40	18	20.40	British	Reardon Smith Line	415.0	54.2	25.5	Vancouver, B. C.	Lisbon, Portugal.	Wheat	8,006	7,006	5,406
Gundulic	18	12.55	18	13.41	18	22.20	18	23.35	Yugoslav	Baburizza & Co	409.0	55.2	26.8	Antofagasta, Chile	Europe	Nitrates	8,334	6,584	4,570
Ramon de Larrinaga	18	13.20	18	14.25	18	23.00	19	9.55	British	Larrinaga & Co	449.9	57.9	24.3	Vancouver, B. C.	Lisbon, Portugal.	Wheat	8,467	7,712	5,600
Hegira	18	14.15	18	15.00	19	11.05	19	11.05	American	Hegira S. S. Co	440.0	56.0	28.0	Everett, Wash	Baltimore, Md	Lumber	11,000	8,353	6,113
Brighton	19	00.30	19	6.45	19	13.35	19	13.35	British	R. Chapman & Son	406.0	54.0	24.3	Vancouver, B. C.	Rotterdam, Holland	Wheat	7,926	5,729	4,102
Santa Cruz	19	4.00	19	7.21	19	14.00	19	23.10	American	Grace Line	384.0	50.2	24.0	Chaparal, Chile	New York, N. Y.	(16)	5,451	5,534	3,868
Denpark	19	6.15	19	8.30	19	15.20	19	15.20	British	J. & J. Denholm	350.0	49.0	21.8	Chicama, Peru	Gothenburg, Swed.	Sugar in bags	5,275	3,924	2,658
Madras City	19	8.50	19	9.37	19	17.12	19	19.45	British	Sir. W. R. Smith & Sons	382.9	53.5	25.6	Portland, Oreg	Queenstown, Ire	Bulk wheat	7,641	5,913	4,377
All America [14]	8–20	20.00	19	10.15	19	17.45	26	11.58	American	All America Cables	278.4	37.0	16.8	Balboa, C. Z	Cristobal, C. Z			1,919	875
Santa Teresa	1–19	5.00	19	11.54	19	18.15	19	21.55	American	Grace Line	360.2	51.6	22.6	Talcahuano, Chile	New York, N. Y.	(17)	2,883	5,726	4,086
Loriga [15]	19	9.10	19	13.04	19	20.50	20	18.30	British	Pacific Steam Nav. Co	406.0	54.0	26.9	Talcahuano, Chile	London, England	(18)	8,151	7,331	5,091
Floreana [15]	18	8.35	19	13.29	19	22.50	20	18.55	Colombian	Colombian Transp. Co	150.0	27.2	9.8	Buenaventura, Col.	Cartagena, Col.	(19)	301	410	307
Clearton	19	13.20	19	14.23	19	21.30	19	21.30	British	R. Chapman & Son	400.0	52.3	25.0	Portland, Oreg	Falmouth, Eng. [12]	Wheat	7,230	5,710	4,164
Lebore	20	00.30	20	6.03	20	16.55	20	16.55	American	Ore S. S. Corp	550.0	72.2	34.0	Cruz Grande, Chile	New York, N. Y.	Iron ore	20,000	14,325	4,635
Persephone [1] [15]	19	19.00	20	6.54	20	14.35	20	14.35	Danzig	Baltic-Amer. Pet. Co	468.6	63.2	27.3	Talara, Peru	Hamburg-Germany	Gasoline	11,447	9,336	6,338
Rhodopis	20	3.30	20	7.35	20	17.05	20	18.55	German	Kosmos Line	435.5	51.0	27.3	Valparaiso, Chile	Hamburg, Germany	Nitrates, general	7,603	7,525	5,154
Atlantic	20	3.30	20	8.28	20	18.26	21	4.55	American	Argonaut S. S. Line	410.5	54.3	24.6	Englewood, B. C	Philadelphia, Pa	Lumber	6,855	6,567	4,917
Ohioan	20	7.10	20	8.48	20	17.38	20	17.38	American	Amer.-Hawaiian Line	407.7	53.7	25.7	Portland, Oreg	Boston, Mass	General	6,579	7,103	4,991
J. L. Luckenbach	20	7.50	20	9.06	20	18.55	20	18.55	American	Luckenbach Line	448.9	60.2	32.0	Portland, Oreg	Boston, Mass	General	11,000	9,294	6,861
Sydland	20	8.44	20	9.59	20	19.50	21	21.25	Swedish	Axel Brostrom & Son	431.1	54.2	27.6	Vancouver, B. C.	Avonmouth, Eng	Bulk wheat	9,466	6,771	4,891
India Maru	20	9.06	20	10.19	20	20.30	20	22.15	Japanese	Kawasaki S. S. Co	385.0	51.0	25.0	Vancouver, B. C.	Hull, England	Bulk wheat	7,671	5,928	4,381
Leise Maersk [15]	20	12.03	20	13.01	20	20.25	20	20.25	Danish	Isbrandtsen Moller Co	302.2	44.2	21.6	Iloilo, P. I	Philadelphia, Pa	Sugar	4,216	3,212	2,206
Port Fremantle [15]	20	7.02	20	13.46	20	21.30	20	21.30	British	Com'lth & Dom. Line	477.4	63.1	25.6	Hobart, Tasmania	London, England	Frozen, general	6,139	10,652	7,704
Salina [1]	19	18.15	20	15.09	20	22.50	20	22.50	American	Gladstone Transp. Co	425.8	57.0	28.0	Los Angeles, Calif	Baltimore, Md	Crude oil	10,354	7,484	5,210
Camden [1]	20	14.30	20	15.21	21	11.15	21	16.20	American	United Fruit Co	419.5	56.5	26.0	Los Angeles, Calif	Port Limon, C. R.	Fuel oil	9,036	6,977	4,959
Mary Ellen O'Niel [1] [15]	21	6.00	21	6.27	21	13.45	21	13.45	American	The Texas Co	509.7	70.3	30.3	Los Angeles, Calif	Baltimore, Md	Bulk gasoline	16,885	12,425	8,338
Atlanticos	20	19.25	21	7.20	21	15.20	21	21.05	Greek	Retaymnis Kulukundis	410.7	54.1	25.5	Tocopilla, Chile	Azores [12]	Nitrates	8,100	6,221	4,482
King Lud [15]	20	19.45	21	7.41	21	16.00	21	17.20	British	Dodd, Thomson & Co	409.7	54.8	23.6	Vancouver, B. C.	Hull, England	Wheat	7,705	6,279	4,336
Cape Comorin	20	23.00	21	8.20	21	17.30	21	19.10	British	Can.-Amer. Ship. Co	400.0	53.6	25.9	Vancouver, B. C.	Hamburg, Germany	(20)	7,385	6,246	4,498
King City	21	2.00	21	8.52	21	17.10	21	17.10	British	Sir. W. R. Smith & Sons	400.5	54.3	26.6	Vancouver, B. C.	London, England	General	7,700	6,993	5,396
Vacuum [1]	21	7.30	21	9.27	21	17.45	21	17.45	American	Vacuum Oil Co	425.0	57.0	28.3	San Francisco, Cal.	Paulsboro, N. J	Lubricating oil	10,223	7,473	5,034
Mantaro	21	5.40	21	9.58	21	18.20	24	8.25	Peruvian	Peruvian Line	367.5	46.0	19.0	Callao, Peru	Cristobal, C. Z	Copper, general	1,865	4,838	2,959
Orkanger [15]	21	5.30	21	10.20	21	18.45	21	18.45	Norwegian	Westfal, Larsen & Co	458.0	59.1	26.6	Los Angeles, Calif	London, England	Gasoline	10,155	8,291	5,822
Commercial Guide	21	16.15	21	16.58	22	11.35	22	13.26	American	Moore & McCormack	460.7	55.2	25.3	Tocopilla, Chile	Norfolk, Va	Nitrates	7,700	6,597	4,752

[1] Tanker. [14] Cable ship. [15] Motor ship. [16] Copper, nitrates, and products. [17] Copper, lead, and general. [18] Copper, nitrates, and sugar. [19] Machinery and pipes. [20] Lumber, wheat, fish meal, and oil.

Edgar F. Luckenbach	21	17.10	21	17.45	22	11.40	22	11.40	American	Luckenbach Line	425.0	57.3	29.6	Tacoma, Wash.	Mobile, Ala.	General	8,000	8,568	6,648
Frankenwald	22	2.00	22	6.13	22	15.00	22	20.05	German	Hamburg-AmericanLine	399.4	54.2	26.0	Coronel, Chile	Hamburg,Germany	General	8,004	6,575	4,490
Borga [15]	22	1.00	22	6.39	22	15.49	22	19.25	Norwegian	Fred Olsen & Co	363.0	51.4	25.5	Vancouver, B. C.	Norway	Wheat, general	6,000	5,242	3,706
Esparta	22	3.44	22	7.19	22	15.50			American	United Fruit Co	338.6	44.0	17.8	San Francisco, Cal.	Port Limon, C. R.	General	626	3,672	2,367
Hazelside	22	8.05	22	8.44	22	15.55	22	17.00	British	Charlton S. S. Co	395.0	52.9	23.8	Vancouver, B. C.	Rotterdam,Holland	Wheat	7,185	5,676	4,200
Massmar	22	8.35	22	9.10	22	17.05	22	17.05	American	Calmar S. S. Co	385.0	51.0	25.0	Aberdeen, Wash.	Philadelphia, Pa.	Lumber	4,753	6,242	4,471
Dixie Arrow [1]	22	12.00	22	12.44	22	19.45	22	19.55	American	Standard Transp. Co	468.3	62.7	28.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline	11,435	9,744	7,140
Finn [15]	22	8.50	22	13.08	22	20.45	23	00.35	Swedish	Cia. Maritima Colom	273.0	41.0	15.6	Buenaventura, Col.	New York, N. Y.	[23]	775	2,472	1,513
Willboro	22	11.47	22	13.26	22	22.12	23	2.35	American	Williams S. S. Line	414.7	55.7	27.6	San Francisco, Cal.	Baltimore, Md.	General, lumber	8,254	7,717	5,763
Gracia	22	7.15	22	13.57	22	22.55	22	22.55	British	Donaldson Brothers	415.5	54.4	27.6	Victoria, B. C.	Glasgow, Scotland	General	6,589	6,809	4,842
Garfield	22	13.52	22	15.13	23	9.12	23	10.55	American	N. O. & S. A. S. S. Co	299.4	45.0	22.6	Talcahuano, Chile	New Orleans, La.	Nitrates	3,679	3,256	2,010
Drechtdijk [15]	22	14.04	22	15.31	23	11.45	23	16.40	Dutch	North Pacific Coast Line	485.5	62.3	30.1	Vancouver, B. C.	Rotterdam,Holland	General	9,980	10,793	7,619
Bradclyde	22	16.31	22	17.19	23	13.05	23	13.05	British	Sir W. R. Smith & Sons	399.6	53.0	25.2	Vancouver, B. C.	Liverpool, England	Bulk wheat	7,761	5,883	4,118
La Marseillaise	22	21.00	23	6.40	23	14.06	24	7.50	French	French Line	429.5	58.2	27.3	Vancouver, B. C.	Antwerp, Belgium	General	9,989	8,079	5,580
Clan McPhee	22	21.50	23	6.55	23	14.15	23	15.55	British	Cayzer Irvine & Co	430.0	53.5	27.0	Paagaumene, Society Islands.	English Channel [12]	Ore and copra	7,550	7,031	4,942
Montrolite [1 15]	23	1.50	23	7.27	23	18.00	23	18.00	British	Imperial Oil Co., Ltd.	510.9	65.2	29.8	Cabo Blanco, Peru.	Halifax, N. S.	Crude oil	16,184	11,555	7,639
Thomas P. Beal	22	22.00	23	8.14	23	17.00	23	17.00	American	U. S. Steel Products Co.	394.0	55.0	27.0	Vancouver, B. C.	Dublin, Ireland	[24]	7,947	7,047	5,100
Portsea	23	8.25	23	9.09	23	18.50	23	22.25	British	Sea S. S. Co	365.0	51.6	23.0	Vancouver, B. C.	W. Hartlepool, Eng	Lumber, wheat.	7,000	5,401	3,842
Lumen [1 15]	23	10.16	23	11.00	23	19.00	24	00.47	British	H. E. Moss & Co	420.1	54.4	26.0	Los Angeles, Calif.	Southampton, Eng.	Gasoline	8,243	6,645	4,843
Minnesotan	23	12.11	23	12.58	23	19.45	23	19.45	American	Amer.-Hawaiian Line	407.0	53.7	26.6	Seattle, Wash.	Boston, Mass.	General	7,500	7,150	5,024
S-16 [22]			23	9.06	23	15.18			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
O-6 [22]			24	6.07	24	13.35			American	U. S. Navy	175.0	16.4		Balboa, C. Z.	Cristobal, C. Z.				
O-8 [22]			24	6.07	24	13.35			American	U. S. Navy	175.0	16.4		Balboa, C. Z.	Cristobal, C. Z.				
O-7 [22]			24	6.14	24	13.35			American	U. S. Navy	175.0	16.4		Balboa, C. Z.	Cristobal, C. Z.				
O-10 [22]			24	6.14	24	13.35			American	U. S. Navy	175.0	16.4		Balboa, C. Z.	Cristobal, C. Z.				
O-9 [22]			24	6.22	24	13.35			American	U. S. Navy	175.0	16.4		Balboa, C. Z.	Cristobal, C. Z.				
Bagaduce [22]			24	6.19	24	13.35			American	U. S. Navy	150.0	28.0		Balboa, C. Z.	Cristobal, C. Z.				
Amsterdam	24	6.40	24	7.05	24	17.25	24	20.30	Dutch	Royal Neth. S. S. Co.	473.0	65.3	29.5	Valparaiso, Chile	Hamburg,Germany	General	12,580	11,638	7,744
Java Arrow [1]	24	7.30	24	8.22	24	18.10	24	18.10	American	Standard Oil Co.of N.Y.	468.3	62.7	27.6	San Francisco, Cal.	New York, N. Y.	Gasoline	11,432	10,084	7,388
Indien [15]	19	11.10	24	8.36	24	18.15	24	18.15	Danish	Canadian Transp. Co	390.7	53.2	27.5	Vancouver, B. C.	Baltimore, Md.	Lumber, general.	7,100	6,173	4,418
Aurora [15]	24	9.52	24	10.52	24	19.25	24	19.25	American	Standard Transp. Co	431.0	59.2	27.0	Los Angeles, Calif.	New York, N. Y.	Gas oil	10,503	7,825	5,102
Antinous	24	12.55	24	13.39	24	21.25	25	6.10	French	Cie. des Mess. Marit'e.	413.0	56.2	23.0	Noumea, N. Calid.	Dunkirk, France.	General	3,875	7,643	5,364
Durazzo	24	12.55	24	14.01	24	22.20			German	Hamburg-AmericanLine	227.5	34.5	14.3	Guayaquil,Ecuador	Cristobal, C. Z.	[25]	816	1,633	1,041
Navy Launch			24		24				American	U. S. Navy				Balboa, C. Z.	Gatun Lake, C. Z.				

[1] Tanker. [22] Submarine. [22] U. S. Navy tug. [23] Coffee, hides, and wax. [24] Grain, lumber, and canned goods. [25] Coffee, cacao, and hides.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
November 18	Heredia	United Fruit Co	New Orleans via Habana.
November 18	Pastores	United Fruit Co	Port Limon, Costa Rica.
November 18	Padilla	Colombian S. S. Co	Puerto Colombia.
November 18	Hans Arp	Royal Netherlands S. S. Co	Amsterdam via wayports.
November 18	James McGee	Standard Shipping Co	Baton Rouge, La.

* DEPARTURES.

Date.	Vessel.	Line.	For—
November 18	Kotonia	Isbrandtsen Moller & Co	Boston via Santiago.
November 18	Pastores	United Fruit Co	New York via Habana.
November 18	Padilla	Colombian S. S. Co	Puerto Colombia.
November 19	Heredia	United Fruit Co	New Orleans via wayports.
November 19	Hans Arp	Royal Netherlands S. S. Co	Jacksonville, Fla.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
November 19	Commodore Rollins	United Fruit Co	Kingston, Jamaica.	November 20	James McGee	Standard Shipping Co	Cartagena, Colombia.
November 19	Rugia	Hamburg-American Line	Tampico via wayports.	November 21	Rugia	Hamburg-American Line	Hamburg via West Indies.
November 19	Ulua	United Fruit Co	New York via Habana.	November 21	Carare	Elders & Fyffes, Ltd	Avonmouth via wayports.
November 19	Denver	U. S. Navy	Boston, Mass.	November 21	Ulua	United Fruit Co	Port Limon, Costa Rica.
November 21	Carare	Elders & Fyffes, Ltd	Avonmouth via wayports.	November 21	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
November 21	Gatun	Standard Fruit & S. S. Co	New Orleans, La.	November 21	Venezuela	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
November 21	Cristobal	Panama R. R. S. S. Line	New York via Haiti.	November 21	Carmania [21]	R. Feuillebois	Bluefields, Nicaragua.
November 21	Suriname	United Fruit Co	New Orleans, La.	November 22	Zacapa	United Fruit Co	New York via wayports.
November 21	Zacapa	United Fruit Co	New York via Kingston.	November 22	Suriname	United Fruit Co	Port Limon, via Bocas del Toro.
November 21	Venezuela	Royal Netherlands S. S. Co	Amsterdam via wayports.	November 22	Commodore Rollins	United Fruit Co	Perme, R. P.
November 21	Carmania [21]	R. Feuillebois	Colon, R. P.	November 22	Coppename	United Fruit Co	New Orleans, La.
November 22	Teutonia	Hamburg-American Line	Hamburg via wayports.	November 22	Teutonia	Hamburg-American Line	Tampico via wayports.
November 22	Coppename	United Fruit Co	Puerto Colombia.	November 22	Anachucuna [22]	United Fruit Co	Colon, R. P.
November 22	Wyneric	Anglo-Saxon Petroleum Co	Curacao, D. W. I.	November 23	Gatun	Standard Fruit & S. S. Co	New Orleans and wayports.
November 22	Anachucuna [22]	United Fruit Co	Colon, R. P.	November 24	Venezuela	Royal Netherlands S. S. Co	Amsterdam via wayports.
November 23	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	November 24	Commodore Rollins	United Fruit Co	Mobile, Ala.
November 23	Venezuela	Royal Netherlands S. S. Co	Port Limon, Costa Rica.	November 24	Dungannon	Texas S. S. Co	Port Arthur and wayports.
November 23	Dungannon	Texas S. S. Co	Port Arthur, Texas.	November 24	Wyneric	Anglo-Saxon Petroleum Co	Curacao, D. W. I.
November 24	Anachucuna [22]	United Fruit Co	Colon, R. P.	November 24	Anachucuna [22]	United Fruit Co	Colon, R. P.
November 24	Commodore Rollins	United Fruit Co	Perme, R. P.				
November 24	Cartago	United Fruit Co	New Orleans via Habana.				

[21] Motor schooner. [22] Motor boat.

PORT OF BALBOA.

November 18	Anyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.	November 19	Anyo Maru	Nippon Yusen Kaisha	Hongkong, China.
November 19	Nora	Grace Line	Los Angeles, Calif.	November 20	Bokuyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
November 20	Bokuyo Maru	Nippon Yusen Kaisha	Hongkong, China.	November 21	Nora	Grace Line	Los Angeles, Calif.
November 20	Cambrai [23]	U. S. Army	High seas off Corinto.	November 21	San Luis [24]	Chiriqui Land Co	Puerto Armuelles, R. P.
November 20	San Luis [24]	Chiriqui Land Co	Puerto Armuelles, R. P.	November 21	Cricamola [25]	Chiriqui Land Co	Puerto Armuelles, R. P.
November 20	Cricamola [25]	Chiriqui Land Co	Puerto Armuelles, R. P.	November 23	Dos Hermanos [24]	A. Valdez	Panama Bay, R. P.
November 23	Dos Hermanos [24]	A. Valdez	Bayano River, R. P.	November 23	A. B. de O'Barrio [24]	Pacific Fruit Co	Bayano River, R. P.
November 23	A. B. de O'Barrio [24]	Pacific Fruit Co	Bayano River, R. P.	November 23	El Colon [24]	H. Elliot	El Real, R. P.
November 23	El Colon [24]	H. Elliot	El Real, R. P.	November 23	Nina [24]	H. Elliot	El Real, R. P.
November 23	Nina [24]	H. Elliot	El Real, R. P.				

[23] Army transport. [24] Motor schooner. [25] Motor yacht. * Other than ships passing through the Canal.

Tonnage of Canned and Dried Fruits Through Canal in October Establishes Record.

During the month of October, 1928, 72,530 tons of canned fruit and 63,305 tons of dried fruit passed through the Canal from the Pacific to the Atlantic. This establishes record figures for both of these items, the previous high mark for canned fruit being in October, 1925, when 65,155 tons were declared, and for dried fruit in November of last year when 60,122 tons were passed through.

Of the total canned fruit tonnage through the Canal last month, all but 1,066 tons originated on the west coast of the United States, 39,459 tons being reported as destined to the east coast of the United States and 27,355 tons to Europe. Of the dried fruit, which also originated on the west coast of the United States, 24,458 tons were reported as being destined to the east coast of the United States and 38,446 tons to Europe.

Notice to Mariners.

BALBOA HEIGHTS, C. Z., *November 26, 1928.*

No. 487.

The following was received by the Hydrographic Office from the Customs Administration at Managua, Nicaragua, under date of November 9, 1928, Administrative Circular No. 172:

NUMBERING OF AND SUMMARY OF FINAL PLANTING AND LOCATION OF NEW BUOYS IN CORINTO HARBOR.

"COLLECTORS OF CUSTOMS, STEAMSHIP COMPANIES, AND OTHERS CONCERNED:

1. With the exception of six (6) spar buoys which have been authorized to be manufactured and located in the upper inner harbor in the vicinity of the dock at Corinto, Nicaragua, all the work of planting and relocating buoys in Corinto harbor has been accomplished.

2. Request has been made to the Hydrographic Office, U. S. Navy Department, Washington, D. C., to have all the navigational aids referred to below, designated by numbers on the new chart of Corinto harbor being prepared by that office.

3. The navigational aids passed on the starboard hand entering the outer and inner harbor will be numbered in that order from Nos. 2 to 12; likewise those passed on the port hand will be numbered from Nos. 1 to 7.

4. The navigational aids with their respective number are as follows:

PASSED ON STARBOARD HAND.

No. 2. Red gas buoy in thirty-five (35) feet of water at mean low water in the following location: Bearing three hundred twelve degrees (312°), distance three hundred forty yards (340), from Cardon Head Light. This buoy now has the following characteristics: Flashing red light single flash; period, three (3) seconds; flash, five-tenths (5/10) second; eclipse, two and five-tenths (2 5/10) seconds.

No. 4. Red nun buoy in forty-two (42) feet of water, at mean low water, four hundred twenty (420) yards bearing one hundred twenty-nine (129°) degrees from Cardon Head Light.

No. 6. Red nun buoy in twenty-five (25) feet of water at mean low water bearing one hundred and thirty-three (133°) degrees, distance eight hundred twenty (820) yards from Cardon Head Light.

No. 8. Red nun buoy in twenty-five (25) feet of water at mean low water bearing one hundred and twenty-three (123½°) degrees and thirty minutes, distance one thousand one hundred twenty (1,120) yards from Cardon Head Light.

No. 10. Red nun buoy in thirty (30) feet of water at mean low water bearing one hundred and sixteen (116½°) degrees and thirty minutes, distance one thousand five hundred (1,500) yards from Cardon Head Light.

No. 12. Red nun buoy in same position as shown on H. O. Chart No. 2604 (10th Edition) in twenty-seven (27) feet of water at mean low water, as for former buoy No. 8.

PASSED ON PORT HAND.

No. 1. Black forty (40) foot spar buoy in twenty-seven (27) feet of water at mean low water, bearing two hundred and eighty seven (287½°) degrees and thirty minutes, distance sixteen hundred and seventy-five (1,675) yards from Cardon Head Light.

No. 3. Black forty (40) foot spar buoy on the range of the outer harbor (front beacon and church cross) in twenty-six (26) feet of water at mean low water, bearing three hundred fifty four (354°) degrees, distance four hundred seventy (470) yards from Cardon Head Light.

No. 5. Black can buoy in twenty-eight (28) feet of water at mean low water in the same position as shown on H. O. Chart No. 2604 (10th Edition) for the former black nun buoy No. 1.

No. 7. Black gas buoy in twenty-seven (27) feet of water at mean low water in the following location: Bearing one hundred fourteen degrees (114°), distance seven hundred forty yards (740), from Cardon Head Light. This buoy has the following characteristics: Flashing white light single flash; period, three (3) seconds); flash, five-tenths (5/10) second; eclipse, two and five-tenths (2 5/10) seconds.

5. Customs Administrative Circular No. 171, dated August 28, 1928, is amended accordingly.

6. The Customs Service, in the name of the Government of the Republic of Nicaragua, desires to express its appreciation of the services rendered by Admiral David F. Sellers, Commander Special Service Squadron, and Capt. H. A. Baldridge, Commander, U. S. S. *Rochester*, and his officers and men, in connection with the relocating and numbering of the buoys in Corinto Harbor, all of the work having been authorized by the Admiral and accomplished under the supervision of the Commander of the U. S. S. *Rochester*, free of charge to the Nicaraguan Government.

The Acting Collector-General of Customs,
Republic of Nicaragua.
W. J. CRAMPTON."

H. BURGESS,
Governor.

Cargo Through Canal During October, 1928.

On pages 242 and 243 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in October, 1928. This cargo, segregated according to direction, as compared with October, 1927, and the differences, are shown in the following tabulation:

	October, 1928.	October, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Atlantic to Pacific	875,641	700,592	+175,049
Pacific to Atlantic	1,706,836	2,017,054	−310,218
Totals	2,582,477	2,717,646	−135,169

As will be noted above, tonnage from the Atlantic to the Pacific increased 175,049 tons over that in October, 1927, while that from the Pacific to the Atlantic showed a decrease of 310,218 tons, or a net decrease of cargo tonnage in both directions under October, 1927, of 135,169 tons. The increased tonnage from the Atlantic to the Pacific, the heaviest month in the history of the Canal for cargo moving in this direction, was directly attributable to heavy shipping over two trade routes, viz., United States intercoastal and from the east coast of the United States to Asia. The decreased cargo tonnage from the Pacific to the Atlantic has been caused by the inactivity of shipments of mineral oils and grain, two of the most important commodities shipped in bulk in this direction.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-eight per cent of the cargo moving from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 22.2 per cent in Europe. Cargo originating in the United States was 104,425 tons, or over 21 per cent, greater than the amount coming from that area in October, 1927. Relatively, however, the amounts coming from the east coast of the United States in the two months were about the same. Cargo from Europe showed an actual increase of 46,050 tons, as well as a small relative increase. The actual increase amounted to about 31 per cent over the amount shipped in October last year.

Destination.—Over 42 per cent of the Pacific-bound cargo was destined to the United States; 24.7 per cent to Asia (including the Philippines); 14.2 per cent to Australasia; and 11.8 per cent to South America. Tonnage to all these areas, with the exception of South America, showed actual increases over the corresponding month a year ago. The increase to the United States amounted to 111,144 tons, or 42 per cent; that to Asia an increase of 47,018 tons, or 22 per cent; and that to Australasia an increase of 3,780 tons, or 3 per cent. That to South America decreased 700 tons. Tonnage to the United States also showed relative increases over October, 1927, while the percentage of the total cargo to Australasia last month was somewhat lower than in October last year.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 54.7 per cent originated on the west coast of the United States; 32.9 per cent in South America; and 8.8 per cent in Canada. Cargo from the United States showed a decrease under October, 1927, of 372,654 tons, or 28.4 per cent. The percentage of the total cargo from the United States in October last year was 64.9 per cent as compared with 54.7 per cent in

October, 1928. Cargo from South America and Canada showed relative as well as actual increases over October, 1927, the actual increases amounting to 44,429 tons, or 8.6 per cent, and 53,053 tons, or 54.4 per cent, respectively.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 85 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 15 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific-bound commodities which aggregated more than 10,000 tons for October, 1928, or October, 1927, are listed in the following tabulation, showing differences:

Commodity.	October, 1928.	October, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Ammonia	2,505	12,515	−10,010
Asphalt	16,256	11,399	+4,857
Automobiles	22,955	10,662	+12,293
Automobile accessories	10,115	5,245	+4,870
Cement	27,344	12,995	+14,349
Coal and coke	9,227	16,117	−6,890
Cotton	51,085	46,736	+4,349
Manufactured goods:			
Iron and steel	217,665	158,904	+58,761
Machinery	13,954	24,502	−10,548
Railroad material	21,251	9,231	+12,020
Tinplate	12,412	2,874	+9,538
Textiles	10,180	18,312	−8,132
Miscellaneous	18,243	6,991	+11,252
Metals, various	18,585	2,397	+16,188
Oils, mineral	76,960	57,400	+19,560
Paper	18,075	14,120	+3,955
Phosphates	15,498	11,920	+3,578
Sulphur	16,063	24,026	−7,963
Tobacco	24,679	4,552	+20,127

The above 19 commodity groups comprise over 68 per cent of the cargo moving from the Atlantic to the Pacific during October, 1928. It will be noted that 14 of these items show increases and 5 decreases. The heaviest increase was in iron and steel.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of October, 1928. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	October, 1928.	October, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Barley	29,166	27,338	+1,828
Beans	27,790	11,332	+16,458
Canned goods (fish, fruit, vegetables, etc.)	143,233	109,793	+33,440
Cold storage (food products)[1]	10,981	8,588	+2,393
Copra	16,037	6,220	+9,817
Cotton	7,888	8,857	−969
Flour	13,482	10,757	+2,725
Fruit, dried	63,305	32,753	+30,552
Fruit, fresh	14,259	2,879	+11,380
Lumber	280,022	300,213	−20,191
Metals, various	57,621	51,290	+6,331
Nitrates	226,267	254,112	−27,845
Oils, mineral	358,484	581,579	−223,095
Ores, principally iron	153,315	156,027	−2,712
Rice	10,556	1,812	+8,744
Sugar	35,200	70,976	−35,776
Wheat	167,551	263,711	−96,160

[1] Does not include fresh fruit.

The above 17 commodity groups comprise over 94 per cent of the cargo moving from the Pacific to the Atlantic during October, 1928. Ten of the items show increases. Mineral oils and wheat decreased heavily, while canned goods and fruit showed increases.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, October, 1928.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.					
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America.[1]	Balboa, C. Z.[2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	Australia.	New Zealand.	Australasia.[1]	Total, Australasia.	Grand totals.	Per cent of total cargo.
North America:																								
United States—																								
North Atlantic ports	6,598	2,820	924	6,031	4,859	21,232	254,146	1,943	3,865	...	38	4,538	264,530	40,788	25,673	11,091	24,723	102,275	27,248	3,454	600	31,302	419,339	47.8
South Atlantic ports	...	...	...	...	...	...	3,402	...	...	...	...	...	3,402	6,620	1,130	1,131	235	9,116	395	...	...	395	12,913	1.5
Gulf ports	793	124	68	237	20	[3]1,242	41,173	2,346	...	...	...	487	44,006	66,069	26,946	7,711	1,968	102,694	6,524	9,025	...	15,549	163,491	18.7
Totals, U. S.	7,391	2,944	992	6,268	4,879	22,474	298,721	4,289	3,865	....	38	5,025	311,938	113,477	53,749	19,933	26,926	214,085	34,167	12,479	600	47,246	595,743	68.0
Cristobal, C. Z.[2]	505	3,956	929	551	1,251	7,192	2,480	22	11,819	...	...	...	14,321	...	...	...	...	...	...	...	...	...	21,513	2.5
East coast of Canada	...	...	...	...	...	...	2,800	2,500	...	...	...	...	5,300	1,893	...	...	...	1,893	7,081	9,655	...	16,736	23,929	2.7
West Indies	43	...	...	...	13	56	8,424	600	...	...	6,922	...	15,946	...	...	...	...	...	...	...	...	...	10,002	1.8
East coast Mexico and Central America	...	...	...	...	...	...	32.52	...	...	...	...	...	3,252	...	...	...	...	...	5,601	7,186	...	12,787	16,039	1.8
Totals, N. America	7,939	6,900	1,921	6,819	6,143	29,732	315,677	7,411	15,684	....	6,960	5,025	350,757	115,370	53,749	19,933	26,926	215,978	46,849	29,320	600	76,769	673,226	76.8
Europe:																								
British Isles	13,347	236	375	3,450	4,954	22,362	9,840	2,506	...	...	...	...	12,346	...	...	...	...	...	4,103	32,754	8,358	45,215	79,923	9.1
Belgium	6,673	148	405	1,323	793	9,272	14,087	825	1,928	....	24	...	16,864	...	...	...	...	...	...	...	...	...	26,136	3.0
Denmark	1,042	...	173	78	5,540	6,833	...	...	...	...	75	...	75	...	...	...	...	...	...	...	...	...	6,908	0.8
France	2,514	...	3	347	133	2,997	2,118	959	557	...	...	...	3,634	...	...	...	...	...	...	...	2,020	2,020	8,651	0.9
Germany	3,165	1,548	710	1,749	1,103	8,275	12,252	3,827	1,880	....	535	...	18,494	...	...	...	...	...	...	...	...	...	26,769	3.1
Holland	2,021	352	569	1,374	24	4,340	4,252	1,002	...	...	...	...	5,254	...	...	...	...	...	...	...	...	...	9,594	1.1
Italy	...	...	...	...	481	481	1,534	13	180	...	...	...	1,727	...	...	...	...	...	...	...	...	...	2,208	0.3
Norway and Sweden	2,477	1,312	65	445	150	4,449	5,327	30	2,019	...	1,085	...	8,461	...	...	...	...	...	...	...	...	...	12,910	1.5
Spain and Portugal	6	...	...	50	158	214	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	214	...
Europe[4]	1,055	245	9	...	12,995	14,304	1,667	1,024	4,239	...	...	...	6,930	...	...	...	...	...	...	...	...	...	21,234	2.4
Totals, Europe	32,230	3,841	2,309	8,816	26,331	73,527	51,077	10,186	10,803	...	1,719	...	73,785	...	...	...	...	...	4,103	32,754	10,378	47,235	194,547	22.2
E. coast of S. America	....	286	....	....	....	286	6,952	202	...	...	29	...	7,183	399	...	...	...	399	...	...	...	...	7,868	1.0
Grand totals	40,169	11,027	4,230	15,635	32,474	103,535	373,706	17,799	26,487	...	8,708	5,025	431,725	115,769	53,749	19,933	26,926	216,377	50,952	62,074	10,978	124,004	875,641	100.0
Per cent of total cargo:																								
October, 1928	4.6	1.2	0.5	1.8	3.7	11.8	42.7	2.0	3.0	...	1.0	0.6	49.3	13.2	6.1	2.3	3.1	24.7	5.7	7.2	1.3	14.2	100.0	...
October, 1927	5.7	1.7	0.6	2.2	4.7	14.9	37.5	2.0	1.8	1.0	0.1	1.3	43.7	14.0	5.5	2.9	1.8	24.2	8.1	8.0	1.1	17.2	100.0	...
October, 1926	3.0	1.0	0.6	1.8	6.2	12.6	39.2	1.9	2.2	1.2	...	0.4	44.9	13.1	6.9	1.9	6.3	28.2	6.3	7.5	0.5	14.3	100.0	...

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, October, 1928.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.												East coast of South America.	Egypt.	Africa.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Central America.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Russia.	Spain and Portugal.	Europe.[1]	Total, Europe.					
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																						
South America:																										
Chile	161,231	8,099	11,908	181,238	.....	1,351	.....	1,485	184,074	24,124	8,383	3	14,714	5,121	2,840	3,996	951	.....	3,405	157,640	221,177	.....	14,467	.....	419,718	24.6
Colombia	59	.....	.....	59	.....	.....	.....	3,099	3,158	.....	17	.....	.....	49	.....	.....	.....	.....	.....	.....	66	.....	.....	.....	3,224	0.2
Ecuador	17,045	.....	.....	17,045	.....	.....	.....	3,943	20,988	25	.....	.....	105	262	.....	189	.....	.....	209	299	1,089	.....	.....	.....	22,077	1.3
Peru	41,798	.....	.....	41,798	36,630	.....	.....	2,146	80,574	19,796	1,951	1,812	1,852	2,318	254	133	5,822	.....	.....	1,144	35,082	.....	.....	.....	115,656	6.8
W. coast S. Am.[1]	40	.....	.....	40	.....	.....	.....	266	306	.....	.....	.....	.....	.....	.....	105	.....	.....	.....	43	148	.....	.....	.....	454	.....
Totals, S. Am.	220,173	8,099	11,908	240,180	36,630	1,351	.....	10,939	289,100	43,945	10,351	1,815	16,671	7,750	3,094	4,423	6,773	.....	3,614	159,126	257,562	.....	14,467	.....	561,129	32.9
North America:																										
W. coast Canada	36,219	.....	1,855	38,074	13,104	6,820	.....	.....	57,998	50,544	376	.....	3,814	4,163	11,218	431	.....	.....	7,868	12,687	91,101	1,436	.....	.....	150,535	8.8
W. coast C. Am.	24	.....	.....	24	.....	.....	.....	2,120	2,144	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,144	0.1
W. coast U. S.	490,405	16,063	32,389	538,857	.....	10,371	12,236	13,116	574,580	205,257	3,484	1,654	20,884	35,558	19,101	14,590	677	.....	22,521	20,235	343,961	6,392	9,100	.....	934,033	54.7
Hawaii	1,165	.....	613	1,778	.....	.....	.....	.....	1,778	1,482	131	.....	.....	33	.....	.....	404	.....	.....	.....	2,050	.....	.....	.....	3,828	0.2
Totals, N. Am.	527,813	16,063	34,857	578,733	13,104	17,191	12,236	15,236	636,500	257,283	3,991	1,654	24,698	39,754	30,319	15,021	1,081	.....	30,389	32,922	437,112	7,828	9,100	.....	1,090,540	63.8
Asia:																										
China	2,501	.....	.....	2,501	.....	.....	.....	22	2,523	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,523	0.1
Japan	1,858	.....	.....	1,858	.....	.....	.....	.....	1,858	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,858	0.1
Philippines	8,770	.....	8,610	17,380	.....	.....	.....	.....	17,380	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17,380	1.1
Far East[1]	477	.....	.....	477	.....	7,648	.....	.....	8,125	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,125	0.5
Totals, Asia	13,606	.....	8,610	22,216	.....	7,648	.....	22	29,886	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29,886	1.8
Australasia:																										
Australia	1,109	.....	.....	1,109	1,230	.....	.....	.....	2,339	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,339	0.1
New Zealand	2,910	.....	.....	2,910	72	.....	.....	.....	2,982	12,367	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,367	.....	.....	.....	15,349	0.9
Australasia[1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,853	.....	.....	.....	.....	4,740	7,593	.....	.....	.....	7,593	0.5
Totals, Australasia	4,019	.....	.....	4,019	1,302	.....	.....	.....	5,321	12,367	.....	.....	.....	.....	2,853	.....	.....	.....	.....	4,740	19,960	.....	.....	.....	25,281	1.5
Grand Totals:																										
October 1928	765,611	24,162	55,375	845,148	51,036	26,190	12,236	26,197	960,807	313,595	14,342	3,469	41,369	47,504	36,266	19,444	7,854	.....	34,603	196,788	714,634	7,828	23,567	.....	1,706,836	100.0
Per cent of total cargo:																										
October, 1928	44.9	1.4	3.2	49.5	3.1	1.5	0.7	1.5	56.3	18.4	0.8	0.2	2.4	2.8	2.1	1.1	0.5	.....	2.0	11.5	41.8	0.5	1.4	.....	100.0	.....
October, 1927	51.6	3.3	1.9	56.8	2.5	2.4	.....	4.5	66.2	15.4	0.7	0.2	1.7	2.2	2.4	0.6	0.5	0.3	0.3	6.9	31.2	0.6	2.0	.....	100.0	.....
October, 1926	57.8	2.3	1.3	61.4	5.1	0.7	.....	1.4	68.6	16.6	1.1	.....	1.1	2.2	0.5	0.8	1.4	.....	0.2	5.4	29.3	0.6	0.5	1.0	100.0	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Notaries Public in the Canal Zone.

The following is a list of notaries public commissioned in the Canal Zone as of November 23, 1928. The list gives, by towns, the name, where stationed, and the date of expiration of commission:

ANCON.

Bowen, Vollie S., Land Office, February 27, 1930.
Boyd, Oscar S., Municipal Division, July 30, 1931.
French, A. W., Gorgas Hospital, May 14, 1929.
Latimer, J. G., Ancon Laundry, April 30, 1930.
McGahhey, J. T., Clubhouse, August 12, 1930.
Ohlson, Elmer F., Gorgas Hospital, December 3, 1930.
Russell, C. V., Gorgas Hospital, April 29, 1930.
Shaeffer, L. E., Office J. O. Collins, April 6, 1929.
Sheibley, F. H., District Court, October 27, 1929.
Walker, J. J., District Court, November 22, 1931.

BALBOA.

Hyde, W. H., Port Captain's Office, March 6, 1930.
Kalar, J. D., Port Captain's Office, April 13, 1929.
Kelley, Thomas H., Mechanical Division, August 18, 1930.
Lefever, John E., Fort Amador, February 28, 1931.
Prager, J. F., Balboa storehouse, December 13, 1929.
Smith, Walter R., Balboa storehouse, September 4, 1931.
Stillwell, J. L., Fort Amador, April 20, 1931.

BALBOA HEIGHTS.

Attaway, E. F., Administration Building, room 343, October 28, 1930.
Boggs, W. B., Administration Building, room 316, August 4, 1931.
Buehler, G. H., Administration Building, room 205, August 17, 1931.
Fenton, John A., Administration Building, room 203, July 28, 1930.
Illwitzer, P. G., Administration Building, room 270, October 12, 1929.
Schecker, C. A., Administration Building, room 244, January 19, 1930.
Sims, Walter H., Quarry Heights, December 1, 1930.
Taylor, R. G., Administration Building, room 318, April 30, 1930.
Ungar, J., Administration Building, room 301, February 2, 1929.
Wang, Frank H., Administration Building, room 305, April 29, 1929.

COROZAL.

Grimm, G. L., Corozal Hospital, October 6, 1929.
Johnson, Mrs. Anna O., Panama Ordnance Depot, February 26, 1930.

CRISTOBAL.

Atwood, H. E., Commissary Division, April 8, 1930.
Campbell, J. S., District Court, January 28, 1929.
Clarke, V. J., Commissary Division, January 14, 1929.
Cotton, Charles, Coaling Plant, March 20, 1929.
Daly, E. J., United Fruit Co., May 26, 1929.
Flood, Arthur, Customs office, November 15, 1931.
Hargy, F. F., Port Captain's office, May 28, 1930.
MacSparran, E. S., Receiving & Forwarding Agency, December 1, 1930.
Murray, P. E., Magistrate, October 13, 1929.
Scarborough, W. W., clubhouse, January 21, 1930.
Slocum, E. L., Chase National Bank, August 10, 1929.
Walsh, M. H., Customs Office, August 5, 1929.
Ellis, Edward E., Coaling Plant, May 24, 1930.

GATUN.

P. L. Malone, Railroad Station, November 23, 1931.

PARAISO.

Holzapfel, A. F., Dredging Division, August 10, 1929.

PEDRO MIGUEL.

Norris, R. N., Municipal Division, August 11, 1930.
Rader, T. C., Pacific Locks, January 21, 1930.
Wright, A. M., Dredging Division, January 21, 1930.
Cauthers, R. A., Municipal Division, June 16, 1930.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending November 24, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cambrai	U. S. Army	November 15	November 16	72	34
Isis	Hamburg-American Line	November 15	November 16	343	45
City of San Francisco	Panama Mail S. S. Co	November 15	November 16	142	27
Cauca	National Navigation Co	November 17	November 17	.....	4
Almelo	Royal Netherlands S. S. Co	November 17	November 18	201	.....
Anyo Maru	Nippon Yusen Kaisha	November 18	November 18	.....	30
Santa Teresa	Grace Line	November 19	November 19	.....	138
Indien	Orient S. S. Co	November 19	November 24	620	.....
Cid	Pacific Steam Navigation Co	November 20	November 20	.....	190
Bokuyo Maru	Nippon Yusen Kaisha	November 20	November 20	60	.....
Vega	U. S. Government	November 21	November 21	14	.....
California	Panama-Pacific Line	November 23	November 23	.....	154
Cambrai	U. S. Government	November 20	.....	1,268	.....
Baarn	Royal Netherlands S. S. Co	November 24	November 24	119	.....

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., December 5, 1928. No. 18.

Canal Traffic During November.

During the month of November, 1928, 527 commercial vessels and 5 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,225,937.48, and on the launches, $20.40, or a total tolls collection of $2,225,957.88.

The daily average number of transits of seagoing vessels for the month was 17.57, and the daily average tolls collection, $74,197.91. The average amount of tolls paid by each of the commercial transits was $4,223.79, as compared with $4,084.28 for the month of October.

Commercial traffic for November was lower by 30 transits and almost $49,000 in tolls than the traffic for the previous month although the daily average tolls collection during November was slightly higher than that in October.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 11 months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 11 months of the calendar years 1927 and 1926:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,370.57	17.48	71,721.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
Totals, first 11 months, 1928	5,755	23,932,933.02	17.18	71,441.59
Totals, first 11 months, 1927	5,496	23,832,563.19	16.46	71,354.98
Totals, first 11 months, 1926	4,962	21,905,503.32	14.85	65,585.34

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *December 3, 1928.*

No. 491.

The following was received by the Hydrographic Office through the Captain of the Port, Cristobal:

BUENAVENTURA, COLOMBIA, *December 3, 1928.*

Palmas Light out and will take 15 days to repair.

(Signed) T. LOPEZ, *Captain of the Port.*

J. L. SCHLEY,
Acting Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 1, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Anglo-Indian	25	1 40	25	6 20	25	13.45	25	15 00	British	Union Sal. de Espana	426 0	59 5	21 0	Torreviega, Spain.	Tacoma, Wash	Salt	7,250	7,130	5,322
Almagro	24	15.50	25	9 15	25	16.42	25	17 43	British	Pacific Steam Nav. Co	303 0	43 0	18 5	New York, N. Y.	Valparaiso, Chile	General	2,983	2,826	1,770
Pacific Hemlock	25	9.00	25	9.15	25	16 06	25	17.15	American	Dimon S. S. Corp	409 7	54 2	21 0	New York, N. Y.	Seattle, Wash	General	5,560	6,630	4,878
City of Rayville [2]	25	6.45	25	9.30	25	17.00	25	19 52	American	Roosevelt S. S. Co., S. B.	401 9	54 2	21 0	New York, N. Y.	Adelaide, Australia	General	1,685	7,097	5,268
Vaba [1]	24	2 10	25	12.20	25	19 19	25	20.33	American	T. P. Galliger & Co.	390 0	54.6	15 0	Baton Rouge, La	Los Angeles, Calif	Ballast		6,205	4,284
Calmar	25	12.50	25	13.05	25	20 32	25	21 58	American	Calmar S. S. Corp	385 0	51 0	28 0	Baltimore, Md	Seattle, Wash	Steel, general	8,533	6,347	4,453
Harry Luckenbach	25	14.15	25	14.55	25	21.20	25	22 17	American	Luckenbach Line	448 9	60 2	24.0	Mobile, Ala	Seattle, Wash	General	5,000	9,262	6,853
No. 252 [3]			25		25	19 19			American	U. S. Army				Cristobal, C. Z	Balboa, C. Z	Ballast			
Silverhazel [2]	25	17.35	25	17.50	26	9 09	26	10 19	British	Silver Line, Ltd	425 6	58.0	22 0	New York, N. Y.	Shanghai, China	General	5,050	8,218	6,037
Noorderdijk	25	6.20	26	6.15	26	12 59	26	14 10	Dutch	Holland-American Line	470 0	58 0	20 0	Rotterdam, Holland	Vancouver, B. C.	General	1,913	8,888	6,612
Chilcop	26	1 47	26	6 15	26	13 45	26	15 00	American	Chile S. S. Co	411 5	54 1	22 0	Baltimore, Md	Chanaral, Chile	General	4,345	6,609	4,973
Atlantic Sun [2]	26	6.55	26	7 35	26	14 35	26	16 20	American	Sun Oil Co	429 3	59 2	18.0	Philadelphia, Pa.	Los Angeles, Calif	Ballast		7,568	5,283
Virginia S.	25	20.55	26	8 05	26	15.18	26	16.30	Greek	Zacharias Samethrakis	375 0	47.6	14.0	Las Palmas, C. I.	Taltal, Chile	Ballast		4,906	3,663
Hurunui	26	9 15	26	9 30	26	16 50	26	18 20	British	N. Z. Shipping Co	480 0	62.0	25.5	Falmouth, England	Brisbane, Australia	General	5,665	10,174	7,209
Absaroka	26	13.45	26	14.00	26	20.46	26	21 55	American	Munson, McCor'k Line	409.6	65.1	19 6	New York, N. Y.	Tacoma, Wash	General	4,537	6,627	4,993
Winifred O'Donnell [2]	26	14 30	26	14.35	26	21.20	26	22 20	American	Texas S. S. Co	434 8	56.0	18.0	Baltimore, Md	Los Angeles, Calif	Ballast		7,425	5,202
Guatemala	25	19.05	27	6.09	27	12.57	27	23 12	American	Panama Mail S. S. Co.	360.2	51.6	24.6	New York, N. Y.	San Francisco, Cal.	General	2,277	5,776	4,081
Astrild [4]	20	12.20	27	6 15	27	14 06	27	16.05	American	E. T. Huffman	69.0	17.0	10.6	Boston, Mass	San Francisco, Cal.	Ballast		46	38
Maimoa	26	17.10	27	6.10	27	14 02	27	15 05	British	Shaw, Savill & Albion	477.9	63 0	28.3	Liverpool, England	Auckland, N. Z.	General	5,450	11,053	7,895
Robin Gray	26	22.30	27	7.25	27	15 10	27	16 25	American	Isthmian S. S. Lines	425 0	55.0	26 6	Baltimore, Md	Tacoma, Wash	Steel, general	8,858	7,472	5,542
Tremeadow	27	9.40	27	10.00	27	16 56	27	18 20	British	Hain S. S. Co	400.0	52.0	16.0	Port Said, Egypt	Vancouver, B. C.	Ballast		5,797	4,090
Dionyssios Stathatos	27	10.30	27	10.50	27	17.47	27	19.08	Greek	D. A. Stathatos & Co	400.0	52.3	21.6	Newcastle-on-Tyne	Thio, N. Calidonia.	Coke and coal	4,922	5,712	4,041
Point Arena	27	12.35	27	12.55	27	20.54	27	21.55	American	Swayne & Hoyt	324.0	46 0	23.0	New Orleans, La	Vancouver, B. C.	Sulphur, general	4,397	3,984	2,612
Montevideo Maru [2]	27	9.45	27	13.45	27	20 42	27	21 48	Japanese	Osaka Shosen Kaisha	430.0	56.0	20.9	Buenos Aires, Arg	Yokohama, Japan	([6])	3,273	7,875	5,821
Durazzo	24	22.20	27	14.13	27	21 35	27	22 50	German	Hamburg-American Line	227.0	34.7	13.10	Cristobal, C. Z	Buenaventura, Col.	General	842	1,633	1,041
Texan	27	13.30	27	15.00	27	21.55	28	00.10	American	Amer.-Hawaiian Line	471.0	57.2	19.9	New York, N. Y.	Tacoma, Wash	General	3,328	9,154	6,966
Quipo [5]			27		27	9.45			American	Ramon Carbello				Cristobal, C. Z	Gatun, C. Z	([7])		2	2
Bicalla [5]			27		27	9.45			American	De Leon				Cristobal, C. Z	Gatun, C. Z	Unknown		3	3
Willzipo	27	15.20	27	17.25	28	11 55	28	13.15	American	Williams S. S. Line	415.0	55.7	27 5	Portland, Me.	Seattle, Wash	General	9,658	7,731	5,805
H. C. Folger [2]	27	17.55	27	18.55	28	12 22	28	13.45	American	Atlantic Refining Co	435.0	56.0	22.0	Charleston, S. C.	Los Angeles, Calif	Ballast		7,461	5,159
Mantaro	26	21.35	28	6.02	28	14.19	28	16 10	Peruvian	Peruvian Line	367.3	46.0	19.7	Covenas, Colombia	Callao, Peru	Cattle, general	359½	4,838	2,959
New Britain	27	18.15	28	6.25	28	14.49	28	16.10	American	Calif. & East'n S. S. Co	386.8	52.2	17 5	Philadelphia, Pa.	Los Angeles, Calif	General	2,458	5,684	4,082
City of Los Angeles	28	5.55	28	7.45	28	14 19	29	1.47	American	Los Angeles S. S. Co	560 0	62.3	25.0	Buenos Aires, Arg	Los Angeles, Calif	Coffee	266	15,041	9,704

[1] Tanker. [2] Motor ship. [3] U. S. Army launch. [4] Motor schooner. [5] Launch. [6] Cotton, coffee, and meat. [7] Towing *Bicalla*.

Romanby	27	20 20	28	7 15	28	15 34	28	17 35	British	Sir. R. Ropner & Co.	390 0	55 5	13 6	Tyne, England	Vancouver, B. C.	Ballast		5,910	4,242
Skramsatd [2]	27	20 35	28	8 28	28	16 12	28	17 35	Norwegian	Fern Line	382 0	53 0	24 11	Galveston, Texas	Yokohama, Japan	([8])	6,690	6,082	4,236
Atlantis	27	21 00	28	8 45	28	16 22	28	17 35	Greek	Brit. & Pac. Trad'g Co	410 5	54 3	16 0	Amst'dam, Holland	Arica, Chile	Ballast		6,230	4,540
Larry Doheny [1]	28	12 04	28	12 20	28	18 59	28	20 05	American	Tidewater Oil Co	430 0	59 2	18 10	New York, N. Y.	Los Angeles, Calif	Ballast		7,494	5,181
Andrea F. Luckenbach	28	11 50	28	12 35	28	20 15	28	21 15	American	Luckenbach Line	496 0	68 0	22 0	Boston, Mass	Seattle, Wash	Steel, general	5,510	11,487	8,762
Franklin K. Lane [1]	28	22 05	29	6 20	29	13 10	29	14 35	American	Huasteca Petroleum Co	435 0	56 2	19 0	Baltimore, Md	Los Angeles, Calif	Ballast		7,405	5,131
Svealand [2]	29	8 50	29	9 04	29	15 25	29	20 10	Swedish	Ore S. S. Corp	561 0	72 0	20 0	New York, N. Y.	Cruz Grande, Chile	Ballast		15,425	4,421
Santa Barbara [2]	29	3 50	29	9 25	29	15 55	30	00 16	American	Grace Line	466 0	64 0	24 5	New York, N. Y.	Talcahuano, Chile	General	3,081	10,583	6,463
Skegness	29	10 15	29	10 40	29	17 29	29	18 45	British	Sir W. R. Smith & Sons	402 0	54 0	14 6	Cardiff, England	Vancouver, B. C.	Ballast		6,621	4,916
Esparta	22	15 50	29	11 15	29	17 54	29	19 33	American	United Fruit Co	330 0	44 0	16 6	Cristobal, C. Z.	San Francisco, Cal.	([9])	807	3,673	2,367
Koranton	29	11 40	29	12 00	29	18 55	29	20 10	British	R. Chapman & Son	412 0	52 0	16 0	Tyne, England	Vancouver, B. C.	Ballast		6,811	4,810
Rossington Court	29	10 05	29	13 00	29	21 35	30	2 47	British	Haldin & Co	420 0	56 0	15 0	Gibraltar	Vancouver, B. C.	Ballast		6,963	4,959
Camden [2]	29	14 15	29	15 10	30	9 24	30	10 27	American	United Fruit Co	419 5	56 5	20 0	Santa Marta, Col.	Los Angeles, Calif	Ballast		6,997	4,959
Geo. W. Barnes [1]	29	15 55	29	16 10	30	11 26	30	12 30	American	Huasteca Petroleum Co	417 0	56 0	20 0	Baltimore, Md	Los Angeles, Calif	Ballast		6,763	4,759
City of San Francisco [2]	16	15 10	30	6 00	30	13 39	30	16 20	Panaman	Panama Mail S. S. Co.	296 0	46 5	20 6	Cristobal, C. Z.	San Francisco, Cal.	General	3,255	3,848	2,606
Martha [2]	26	17 15	30	6 10	30	15 12	30	17 05	Norwegian	H. C. Stevenson	183 2	30 0	9 7	Cristobal, C. Z.	Buenaventura, Col.	General	450	780	504
Hessen	28	9 00	30	6 16	30	13 56	30	16 02	German	Hamburg-AmericanLine	468 0	58 0	24 0	Hamburg, Germany	Vancouver, B. C.	General	6,508	9,568	6,680
Helen Olmsted [1]	28	16 28	30	7 20	30	14 42	30	18 10	American	Texas S. S. Co	425 8	57 0	22 0	Philadelphia, Pa.	Los Angeles, Calif	Ballast		7,484	5,216
Mineola	29	10 25	30	7 20	30	15 00	30	22 50	American	N. O. & S. A. S. S. Co.	298 6	40 0	20 6	New Orleans, La.	Talcahuano, Chile	General	2,200	2,835	1,805
Sacramento	30	6 00	30	7 45	30	15 31	30	16 46	American	Charles Nelson & Co.	380 0	53 2	19 6	Baltimore, Md	San Francisco, Cal.	([10])	3,656	5,653	4,122
Anniston City	30	3 00	30	8 35	30	16 10	30	17 26	American	Isthmian S. S. Lines	424 2	56 2	25 10	Mobile, Ala	Shanghai, China	Steel, general	7,842	7,611	5,450
President Van Buren	30	8 45	30	9 40	30	16 27	30	21 40	American	Dollar Line	502 1	62 2	26 0	New York, N. Y.	Around the world	General	5,060	12,023	8,495
Heluan	28	13 50	30	10 40	30	17 54	30	20 35	German	Hamburg-AmericanLine	441 0	53 1	25 6	Hamburg, Germany	Valparaiso, Chile	General	4,067	7,621	5,313
Lippe	29	10 00	30	11 22	30	18 17	30	19 48	German	North German Lloyd	475 0	59 0	23 3	Bremen, Germany	San Antonio, Chile	General	4,588	8,734	5,995
Sucarseco	30	3 38	30	13 10	30	20 20	30	21 40	American	Transmarine Lines	324 0	46 2	21 6	Newark, N. J.	San Francisco, Cal.	General	2,800	3,984	2,628
Eugenia	30	10 45	30	13 10	30	21 08	30	22 10	Greek	Livanos	365 0	51 5	20 0	Swansea, England	Valparaiso, Chile	Coal	4,676	4,504	3,285
Calcutta Maru	30	13 20	30	13 35	30	20 27	12–1	00 32	Japanese	Nippon Yusen Kaisha	400 0	54 6	23 0	Baltimore, Md	Kobe, Japan	General	5,627	5,790	4,178
Hazel Branch	14	9 20	30	14 11	30	21 55	30	23 10	British	F. & W. Ritson	400 0	51 0	21 6	Liverpool, England	Valparaiso, Chile	General	4,500	5,208	3,578
Silkeborg	30	13 30	30	18 00	12–1	8 53	12–1	10 17	Danish	C. K. Hansen	265 0	42 2	16 0	Cardenas, Cuba	Los Angeles, Calif	Sugar	2,000	2,040	1,355
Vera Radcliffe	12–1	4 45	12–1	6 35	1	13 51	1	15 04	British	E. T. Radcliffe	415 0	55 0	17 6	Algiers, Algeria	Vancouver, B. C.	Ballast		6,791	4,906
Great City	1	5 20	1	6 35	1	14 00	1	15 24	British	Empire Shipping Co	420 0	56 9	15 6	Cardiff England	Vancouver, B. C.	Ballast		7,029	5,478
Port Caroline	1	6 20	1	7 43	1	14 49	1	16 14	British	Com'lth & Dom. Line	480 0	62 0	24 9	New York, N. Y.	Brisbane, Australia	General	3,159	10,740	7,829
Forresbank [2]	1	6 25	1	7 50	1	15 40	1	17 04	British	Andrew Weir & Co	420 0	54 0	25 6	Tampa, Fla	Osaka, Japan	([8])	7,987	7,097	5,009
Jane Christenson	1	7 03	1	8 30	1	15 45	1	17 04	American	Arrow Line	423 0	54 2	20 8	Baltimore, Md	Los Angeles, Calif	General	4,852	6,615	4,966
Baralt	1–29	19 15	1	9 55	1	16 30	1	17 50	Dutch	Royal Neth. S. S. Co.	202 0	33 1	11 9	Cristobal, C. Z.	Buenaventura, Col.	General	280	1,183	742
Agwistar	12–1	00 20	1	11 50	1	18 10	1	20 00	American	Grace Line	370 0	53 1	20 0	New York, N. Y.	Buenaventura, Col.	General	3,224	5,523	4,068
Washington Maru	1	16 55	1	17 05	2	9 31	2	11 52	Japanese	Kokusai Kisen Kaisha	385 0	51 0	21 0	Newport News, Va.	Yokohama, Japan	General, cotton	3,681	5,919	4,400
Buccaneer [5]			1		1	19 05			American	H. C. Downey				Cristobal, C. Z.	Gatun, C. Z.			2	2

[1] Tanker.

[8] Phosphates and cotton.

[9] Bananas, cocoa, and coffee.

[10] Steel pipe, coal, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Vestalia	24	21.00	25	6 51	25	14 38	25	17 15	British	DuPont de Nemours	423 2	56 0	25 3	Tocopilla, Chile	Mobile, Ala	Nitrates	8,550	6,199	4,412
Altobizkar Mendi	25	12.30	25	14.08	25	21.10	26	12.40	Spanish	Sota & Aznar	400 0	53 0	26 4	Tocopilla, Chile	Europe	Nitrates	8,114	6,005	4,228
Solano [1]	25	21.55	26	6.09	26	13 20	26	13.20	American	Associated Oil Co	419 5	53 2	26 3	San Francisco, Cal.	New York, N. Y	Gasoline	9,000	7,060	5,025
Carlton	25	23.25	26	6.38	26	14 50	26	16.05	British	R. Chapman & Sons	390 0	53 0	24 3	Vancouver, B. C.	London, England	Wheat	7,975	5,612	4,119
Teno	26	00.10	26	7.19	26	14 00	26	19 40	Chilean	Chilean Line	421 8	56 0	25 0	Valparaiso, Chile	New York, N. Y	General	4,763	7,764	4,672
Martha [11]	26	7.30	26	10.02	26	17 15	30	6 10	Norwegian	C. Hannevig	183 2	30 1	9 0	Panama Bay, R. P.	Cristobal, C. Z	Ballast		780	504
Oakmar	26	10.35	26	11.11	26	18 30	26	18 30	American	Calmar S. S. Corp	384.4	51.2	23 5	San Francisco, Cal.	Philadelphia, Pa.	Steel, general	5,765	6,327	4,433
Watertown [1]	26	12.25	26	13.12	26	20 25	26	20 25	American	Cities Service Corp	416 9	56 2	27 0	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	8,326	6,717	4,778
Colombian	26	13 00	27	6.32	27	14 40	28	3.15	American	Panama Mail S. S. Co.	380.7	48 7	20.7	San Francisco, Cal.	New York, N. Y.	General	1,537	6,015	4,281
Arantzazu Mendi	26	20.00	27	7.29	27	15.34	27	17 00	Spanish	Sota & Aznar	400 0	53 0	27 0	Antofagasta, Chile	Azores [13]	Nitrates	9,657	6,951	4,849
Cali	27	4.00	27	8.11	27	17.25			German	North German Lloyd	216 5	32 9	14 8	Guayaquil, Ecuador	Cristobal, C. Z	General	789	1,105	698
Jamaica	27	8 40	27	9 48	27	17.30			British	Pacific Steam Nav. Co	220 0	34 0	11 4	Champerico, Guat	Cristobal, C. Z	General	397	1,187	622
Toftwood	27	7.45	27	10 05	27	18 40	27	19.55	British	Jos. Constantine Line	378 0	52 3	22 6	Vancouver, B. C.	Lisbon, Portugal	Wheat	7,165	5,330	3,820
Oran	27	10.10	27	10.44	27	18 50	27	18 50	American	Oriental Navigation Co.	410 6	54 2	25 7	San Francisco, Cal.	Philadelphia, Pa.	Lumber, general	7,350	6,755	4,889
Queen Maud	27	12.25	27	13.06	27	20.30	27	22 05	British	T. Dunlop & Son	400.2	52 5	25 6	Iquique, Chile	New Orleans, La	Nitrates	7,700	5,748	3,955
Robin Goodfellow	27	18.30	28	6 04	28	13 30	28	13 30	American	Seas Shipping Co	424 8	55 2	26.0	Tacoma, Wash	Boston, Mass	Lumber, pulp	7,256	7,473	5,536
Papoose [1]	27	17.00	28	7.05	28	15 48	28	15.48	American	Petroleum Nav. Co	412 0	53 2	27 0	Los Angeles, Calif	New York, N. Y.	Refined oil	8,755	6,285	4,370
Suwied	27	19.37	28	7.15	28	16 10	28	16.10	American	Charles Nelson & Co.	324 0	46 2	22 0	San Francisco, Cal.	New York, N. Y.	Lumber, general	3,645	3,983	2,629
K.I.Luckenbach	27	19.30	28	8.15	28	17 05	28	17.05	American	Luckenbach Line	446 0	56 1	29 3	Portland, Oreg	Boston, Mass	General	7,531	8,552	6,236
Virginian	28	7.15	28	9.08	28	17.35	28	17.35	American	Amer.-Hawaiian Line	491 5	58 2	29 0	Portland, Oreg	Boston, Mass	Lumber, general	9,000	10,491	7,601
Mindoro [11]	28	6.15	28	9.21	28	18 15	28	21.35	British	Phoenix Nav. Co	399 3	52 8	24 0	Vancouver, B. C.	Boston, Mass	Lumber	6,000	6,117	4,423
Pacific Grove [11]	28	9.50	28	10.38	28	18 50	28	18.50	British	Furness, Withy & Co	450 0	60 6	28 0	Vancouver, B. C.	Glasgow, Scotland	General	8,636	10,086	7,226
Henry S. Grove	28	10 30	28	11.15	28	19 20	28	19.20	American	Argonaut Line	404 6	53 9	25 0	Engelwood, B. C	New York, N. Y.	Lumber	5,452	6,755	4,688
Taormina	28	12.26	28	13.47	28	20.35	29	21.30	Italian	Nav. Gen. Italiana.	482 0	58 3	27 0	Valparaiso, Chile	Genoa, Italy	General	3,800	9,760	6,236
Elder Branch	28	14.56	28	15.43	28	23 35	28	23.35	British	F. & W. Ritson.	380.3	49.7	23 8	Corral, Chile	Liverpool, England	General	6,123	4,951	3,592
Agwidale	28	21 50	29	6.40	29	14 10	29	14.10	American	Clyde & Mallory S.S.Co.	370 0	53 1	23 6	Anacortes, Wash	New York, N. Y.	Lumber	5,800	5,625	4,248
Aachen	28	23 50	29	7.48	29	15.50	30	6.20	German	North German Lloyd	431.1	56 4	25 0	Valparaiso, Chile	Bremen, Germany	General	7,337	7,196	4,956
Pacific Spruce	29	4 30	29	8 34	29	17.50	29	17 50	American	Dimon S. S. Corp.	410 6	54 0	24 8	Tacoma, Wash	New York, N. Y.	Lumber	8,088	6,624	4,757
Point Judith	29	6.36	29	8.55	29	16 40	29	16.40	American	Swayne & Hoyt	289 0	44 0	19 6	San Francisco, Cal.	New Orleans, La	Lumber, general	2,998	2,902	1,962
La Perla	29	8.00	29	9.09	29	16 40	12–3	16.05	American	United Fruit Co	325.2	48 1	21 0	San Francisco, Cal.	Port Limon, C. R.	General	803	4,033	2,261
Baralt	29	11.55	29	12.30	29	19.15	1	9.55	Dutch	Royal Neth. S. S. Co.	200 0	33.0	12 6	Guayaquil, Ecuador	Cristobal, C. Z	General	558	1,183	742
Devon	29	13.15	29	14.26	29	22.05	30	00.10	British	Federal Steam Nav.Co	473.3	59 5	27.0	Dunedin, N. Z	Liverpool, England	Frozen, general	7,004	9,951	6,801
Craftsman [12]	29	5.28	29	14.51	29	21.45	29	21.45	American	R. J. McArdle Con. Co.	126 0	29.0	15.6	Buenaventura, Col.	Habana, Cuba			370	288
Cauca [11]	29	14.30	29	15.15	29	22.50			Colombian	National Navigation Co.	107.2	23.0	11.0	Buenaventura, Col.	Cristobal, C. Z	Coffee	257	238	163
Santa Veronica	29	14.50	29	15.33	29	22.50	29	22.50	American	Amer. & Cuban Line	251.0	43 6	22.6	San Francisco, Cal.	Baltimore, Md	Canned goods	2,700	2,823	1,740
Pajala [11]	29	15.50	29	16.41	30	11.45	30	11.45	Swedish	Can.-Amer. Ship. Co	419.0	55 1	28.0	Vancouver, B. C.	Hamburg, Germany	([14])	9,047	7,274	5,213

[1] Tanker [11] Motor ship. [12] Tug. [13] For orders [14] Wheat, lumber, and fish oil.

Homeside	29	16 20	29	17.15	30	13 00	30	16 15	British	Charlton S. S. Co	384.0	52.3	23.0	Vancouver, B. C.	Lisbon, Portugal	Wheat	6,951	5,127	3,718
Levant Arrow [1]	28	8 54	30	6.20	30	14.51	12–2	5.35	American	Standard Transp. Co	468.3	62.7	27.0	Los Angeles, Calif.	New York, N. Y.	([15])	11,176	9,744	7,039
Bencleuch	29	17.00	30	6.43	30	17.45	30	22.55	British	Wm. Thomson & Co	410.0	54.1	23.6	Vancouver, B. C.	Birkenhead, Eng.	Lumber, wheat.	7,470	6,621	4,227
King Malcolm [11]	29	18.00	30	7.19	30	18.12	30	18.12	British	Dodd, Thomson & Co	400.3	59.0	25.0	Vancouver, B. C.	Manchester, Eng.	Wheat	8,388	7,367	5,561
Rio Diamante	30	3.00	30	8.09	30	18.35	12–1	1.30	British	Thompson S. S. Co	400.0	56.2	24.0	Vancouver, B. C.	Hamburg, Germany	Wheat	8,053	6,357	4,583
Stockton [1]	30	1.33	30	9.11	30	19.05	30	19.25	American	Gladstone Transp. Co	425.8	57.0	28.0	Los Angeles, Calif.	Baltimore, Md.	Crude oil	10,711	7,485	5,231
Canadian Commander	30	9.50	30	10.37	30	20.00	12–1	00.20	British	Can. Nat. Steamships	400.0	52.0	21.0	Cairns, Australia	Halifax, N. S.	General	4,500	5,914	4,195
Salvador	30	16.15	12–1	6.24	12–1	12.40			British	Pacific Steam Nav. Co	215.0	33.5	12.7	Champerico, Guat	Cristobal, C. Z.	([16])	148	1,270	735
American	30	21.30	1	6.30	1	13.45	1	13.45	American	Amer.-Hawaiian Line	404.6	53.9	26.0	Seattle, Wash.	Boston, Mass.	General	6,323	6,777	4,761
Vojvoda Putnik	12–1	1.00	1	7.27	1	16.10	1	16.45	Yugoslav	Yugoslav-Amer.Nav.Co	400.0	52.9	28.0	Antofagasta, Chile	Azores [13]	Nitrates	8,900	6,016	4,178
Orduna	1	5.15	1	8.33	1	16.05	1	23.25	British	Pacific Steam Nav. Co	550.3	67.0	32.0	Talcahuano, Chile	Liverpool, England	General	7,233	17,146	12,015
Rio Dorado	1	1.00	1	8.42	1	17.15	1	21.55	British	Thompson S. S. Co	390.0	55.3	24.1	Portland, Oreg.	Cork, Ireland	Wheat	7,700	6,189	4,509
Dochet	1	4.30	1	9.19	1	17.12	1	17.12	American	Redwood Line, Inc	386.8	52.9	23.6	San Francisco, Cal.	New Orleans, La.	Lumber, general.	5,463	5,705	4,167
Tudorstar	1	10.30	1	11.19	1	20.15	1	22.45	British	Blue Star Line	440.0	54.4	24.0	Vancouver, B. C.	Hull, England	Fruit, general.	4,574	7,624	5,574
Asia [14]	1	12.05	1	13.03	1	20.12	1	20.12	Danish	East Asiatic Co	425.0	55.0	27.0	Vladivostok, Sib.	Copenhagen, Den.	General	9,350	7,396	5,587
American Star	1	13.40	1	14.56	1	22.15	2	2.10	American	Charles Nelson & Co	386.8	52.2	23.7	Port Angeles Wash.	Norfolk, Va.	Lumber, general.	6,307	5,699	4,167

[1] Tanker. [15] Gasoline and kerosene. [16] Coffee, wood, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
November 25	Ulua	United Fruit Co	Port Limon, Costa Rica.	November 25	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
November 26	Maravi	United Fruit Co	Puerto Colombia.	November 26	Cartago	United Fruit Co	New Orleans and wayports.
November 26	Toloa	United Fruit Co	New York via Kingston.	November 26	Maravi	United Fruit Co	New York via Kingston.
November 26	Nitonian	Leyland Line	Tunas de Zaza, Cuba.	November 27	Nitonian	Leyland Line	Curaçao and Cartagena.
November 27	Mayari	United Fruit Co	New York, N. Y.	November 27	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
November 28	Linda S. [17]	Surgeon Brothers	Colon, R. P.	November 27	Ulua	United Fruit Co	New York via wayports.
November 28	Granada	Standard Fruit & S. S. Co	New Orleans, La.	November 28	Toloa	United Fruit Co	Port Limon, Costa Rica.
November 28	Tilapa	Elders & Fyffes, Ltd	Avonmouth, England.	November 28	Linda S. [17]	Surgeon Brothers	Bluefields, Nicaragua.
November 28	Santa Marta	United Fruit Co	New York via Kingston.	November 28	Mayari	United Fruit Co	Puerto Colombia.
November 29	Flandre	French Line	Havre via wayports.	November 29	Santa Marta	United Fruit Co	New York via wayports.
November 29	Banan	United Fruit Co	Mobile, Ala.	November 29	Tilapa	Elders & Fyffes, Ltd	Kingston, Jamaica.
November 29	S. M. Spalding	Pan.-American Petroleum Co	Tampico, Mexico.	November 29	Anachucuna [18]	United Fruit Co	Colon, R. P.
November 29	Anachucuna [18]	United Fruit Co	Colon, R. P.	November 30	Flandre	French Line	Havre via wayports.
November 30	Suriname	United Fruit Co	Bocas del Toro, R. P.	November 30	Granada	Standard Fruit & S. S. Co	New Orleans and wayports.
November 30	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	December 1	Banan	United Fruit Co	Port Limon, Costa Rica.
November 30	Laila	Gulf Caribbean S. S. Co	New Orleans, La.	December 1	Anachucuna [18]	United Fruit Co	Colon, R. P.
December 1	San Pablo	United Fruit Co	New York via wayports.	December 1	Laila	Gulf Caribbean S. S. Co	Cartagena, Colombia.
December 1	Anachucuna [18]	United Fruit Co	Colon, R. P.	December 1	Suriname	United Fruit Co	New Orleans, La.
December 1	Parismina	United Fruit Co	New Orleans via Habana.	December 1	S. M. Spalding	Pan.-American Petroleum Co	Aruba, D. W. I.
				December 1	San Pablo	United Fruit Co	New York via Kingston.

[17] Motor schooner. [18] Motor boat.

PORT OF BALBOA.

November 26	Circamola [19]	Chiriqui Land Co	Pto. Armuelles, R. P.	November 26	Cricamola [19]	Chiriqui Land Co	Pto. Armuelles, R. P.
November 27	San Luis [20]	Chiriqui Land Co	Pto. Armuelles, R. P.	November 28	San Luis [20]	Chiriqui Land Co	Pto. Armuelles, R. P.
November 27	A. B. de Obarrio [20]	Pacific Fruit Co	Bayano River, R. P.	November 28	A. B. de Obarrio [20]	Pacific Fruit Co	Panama Bay, R. P.
November 28	Dos Hermanos [20]	A. Valdez	Bayano River, R. P.	November 28	Dos Hermanos [20]	A. Valdez	Panama Bay, R. P.

[19] Motor ship. [20] Motor schooner. * Other than ships passing through the Canal.

Tanker Traffic Through the Panama Canal in November, 1928.

During the month of November, 1928, 81 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 438,224, on which tolls of $391,315.05 were collected. Cargo amounted to 433,952 tons. In point of net tonnage, tanker traffic for the past month showed a decrease of 19.0 per cent under the same traffic for the corresponding month a year ago, while cargo tonnage decreased 11.7 per cent under the cargo tonnage of November, 1927.

Tank ships comprised 15.3 per cent of the total commercial transits through the Canal during the month; made up 17.6 per cent of the total Panama Canal net tonnage; were the source of 17.5 per cent of the tolls collected; and carried 17.3 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of November, 1928, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for November, 1927:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	11	61,369	$46,474.74	9,244
Danzig	2	12,401	8,928.72	.....
Norwegian	2	8,265	5,950.80	.....
Swedish	1	6,295	4,532.40	.....
United States	21	116,282	83,723.04	.....
Totals, November, 1928	37	204,612	149,609.70	9,244
Totals, October, 1928	48	246,410	181,883.99	32,050
Totals, September, 1928	41	235,793	171,293.73	9,015
Totals, November, 1927	50	281,063	203,739.65	7,448
Pacific to Atlantic.				
British	7	32,758	35,847.85	59,862
Danzig	2	12,465	13,130.00	22,627
Dutch	2	6,724	7,352.50	13,154
French	1	4,545	4,995.00	8,019
Norwegian	1	5,822	6,096.25	10,156
United States	31	171,298	174,283.75	310,890
Totals, November, 1928	44	233,612	241,705.35	424,708
Totals, October, 1928	34	198,107	200,340.90	358,076
Totals, September, 1928	48	259,927	268,061.25	482,630
Totals, November, 1927	46	259,990	266,590.80	484,015

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for November, 1927:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
November, 1928	29	160,638	115,659.36	.....
October, 1928	36	186,866	135,890.77	.....
September, 1928	28	161,006	115,924.32	.....
November, 1927	38	220,128	158,492.16	.....
From Los Angeles.				
November, 1928	33	174,578	180,329.10	317,050
October, 1928	23	134,002	131,918.40	232,617
September, 1928	35	187,938	191,746.25	345,357
November, 1927	31	173,486	176,863.75	327,064

Executive Order.

For the Government of Corozal Hospital.

By virtue of the authority vested in me I hereby establish the following order for the Canal Zone governing Corozal Hospital, amending the Executive Order promulgated May 10, 1911, to read as follows:

SECTION 1. The Panama Canal asylum for the insane shall be at Corozal Hospital, under the jurisdiction of the Health Department. Its object shall be the shelter and curative treatment of the insane.

SEC. 2. The Superintendent of Corozal Hospital shall be the administrative chief of the asylum, subject to existing laws and orders and to such rules and regulations as may be issued by the Health Department in accordance with existing laws and orders. He shall have the supervision over the professional and administrative personnel of the asylum and over the inmates, and he shall satisfy himself that all patients receive the care and medical treatment which are best adapted to their comfort and recovery.

He shall see that a proper register of each patient is kept, showing name, previous residence, occupation, origin and antecedents, and condition at the time of admission; and he shall keep a record of their mental and physical condition, as well as the medical treatment they receive during the time of their stay in the asylum. The death or discharge of patients shall be entered in the register.

SEC. 3. No person declared to be insane shall be kept in jail, prison, hospital for the sick, or other similar institution, except on written authority of the Superintendent of Corozal Hospital, which authority shall state the reason therefor.

SEC. 4. Except as provided for in sections 14 and 15, no person shall be admitted as a patient in the asylum for the insane except upon the order of the District Judge of the Canal Zone, provided that if a patient is in a state of violent insanity he may be admitted at once by the Superintendent of Corozal Hospital, without an order from the Court, into the quarters provided for the observation of persons alleged to be insane, upon the written request of any physician employed by the United States Government; or such patient may be admitted to the observation quarters by said Superintendent upon his own authority.

It shall be the duty of the Superintendent of Corozal Hospital to file a written report with the Clerk of the District Court within twenty-four hours after the patient has been admitted to the observation quarters, which report shall set out the name, age, and physical condition of patient, together with name of physician attending patient at time of admittance, and as soon as the clerk shall have received the report, he shall enter it upon the docket and the District Judge shall proceed to examine and determine the case in like manner as if the petition had been presented to him prior to the patient's admission into observation quarters.

SEC. 5. To obtain the judicial order provided for in the preceding section, it shall be necessary for the nearest relative of the person alleged to be insane to present a petition, duly subscribed and sworn to by the petitioner, to the Judge of the District Court of the Canal Zone, which petition shall state the sex, age, and nationality of patient, if known, and the facts showing patient's mental infirmity, and, if possible, the history of the case and the form of insanity with which he is suffering and the attending circumstances making it necessary that he be confined in the asylum. The petition shall be accompanied by a certificate signed by one or more reputable physicians to the effect that such person is insane.

When the nearest relatives of the person alleged to be insane are absent or refuse to act, the petition may be made by any person residing within the Canal Zone, and in that event the petitioner shall state that the nearest relatives of the patient are absent or refuse to act.

SEC. 6. The petition provided for in the preceding section shall take precedence over all other matters pending before the court and shall be heard by the Judge thereof without delay, and if the facts stated therein are sufficient to satisfy him of the insanity of the person sought to be confined, he shall issue orders at once directing that the person alleged to be insane be taken in custody for observation.

SEC. 7. The order of the Judge directing that the person alleged to be insane be placed under observation shall be sufficient authority for the Superintendent of Corozal Hospital to admit the patient into the asylum for the purpose of observation, there to remain until the observation is conclued; and the Judge shall direct in said order that, if the observation shall show that the patient is not insane, he shall be set at liberty at once, and the Superintendent of Corozal Hospital shall forthwith report his action thereon to the Judge who issued the order.

The observation of the alleged insane person shall be made in suitable quarters within the asylum grounds by the Superintendent of Corozal Hospital, or under his

direction, and shall be for a period of not more than thirty days, and the Judge who issues the order for the detention of the patient shall require the Superintendent to make reports thereon.

It shall be the duty of the physician in charge of the observation to examine the patient and observe the symptoms of the case. Within thirty days after the patient is placed under observation, the Superintendent shall make a report in writing, stating whether the patient is sane or insane; the report shall contain a statement of the facts upon which the opinion is based, and shall be immediately filed with the clerk of the court.

SEC. 8. It shall be the duty of the Court to render final judgment therein, either committing the patient to the asylum, or ordering his discharge, or directing that he be turned over to his relatives who are able and willing to take care of him.

SEC. 9. The relatives of the person alleged to be insane, or the District Attorney, may appear and contest the report of the Superintendent, and in such cases the Judge shall hear the evidence presented by the parties and render judgment thereon, as provided in section eight.

SEC. 10. Any person interested in an inmate of the asylum, who believes such inmate is improperly detained therein, may make application to the District Judge for the discharge of such patient. Upon receipt of such application the Judge shall issue an order to the Superintendent, Corozal Hospital, to make a report on the patient's condition, and upon the receipt of such report shall consider the case, and, in his discretion, may grant or deny the application. The Judge may cause the patient to be examined by two competent physicians who shall report in writing as to the condition of the patient.

SEC. 11. A patient serving a sentence for the violation of the criminal laws of the Canal Zone shall be discharged from the Hospital upon the order of the District Court. All other patients may be discharged by the Superintendent. He shall file with the clerk of the court a written statement that in his judgment such patient has recovered, or that the discharge will not be detrimental or dangerous to the public welfare or injurious to the patient, provided that before discharging any patient who has not recovered, the Superintendent shall satisfy himself by adequate investigation that the relatives or friends of the patient are able and willing to receive and care for such patient.

No patient shall be discharged from the Hospital without suitable clothing.

SEC. 12. If any person confined in a prison or penitentiary under the sentence of a court becomes insane, he shall be committed to the asylum for the insane by the Judge of the District Court. In all such cases the provisions of this order relating to the period of observation of the patient and the trial of the issue as to his insanity shall be observed. Whenever a person is committed to the insane asylum under the provisions of this section, the order of commitment issued by the court shall include a statement of the offense of which the person was convicted, the term of his imprisonment and the date upon which said term is to expire. Should such person be discharged from the insane asylum before the date of the expiration of his term of imprisonment, he shall be returned to the penal institution from which he was taken.

SEC. 13. Nothing contained in this order shall be construed to repeal or modify the provisions of the Code of Criminal Procedure of the Canal Zone relating to the inquiry into the insanity of the defendants before trial or after conviction.

SEC. 14. Insane patients from the Republic of Panama may be admitted into the asylum for the insane in accordance with the existing agreements between the Canal Zone authorities and the Panaman authorities, or under such changes and modifications of said agreement as may be made from time to time.

SEC. 15. The Superintendent of Corozal Hospital is authorized to receive as patients, members of the Army, Navy, and Marine Corps, for observation, and care pending their transfer to the United States, upon the order of the Commanding General of the Panama Canal Department, United States Army, or the Commandant of the 15th Naval District of the United States Navy, or other competent naval authority in the case of naval vessels in Canal Zone waters which are not under the jurisdiction of the 15th Naval District.

SEC. 16. The Governor of The Panama Canal is hereby authorized to make rules and regulations necessary for the carrying out of the provisions of this order.

SEC. 17. This order shall take effect thirty days from this date.

CALVIN COOLIDGE

THE WHITE HOUSE,
November 3, 1928.

[No. 4988]

New Monthly Record for Rainfall at Balboa Heights.

During the month of November, a total of 20.5 inches of rain fell at Balboa Heights, which exceeds the previous record at this station for November (1920), by 1.28 inches and exceeds the high record for any month in the past 32 years by 0.23 inch. The previous highest rainfall, 20.27 inches, occurred in October, 1900. In establishing this new record, more than twice the normal amount of rain fell in November, 9.92 inches being the average.

The unusually heavy rainfall occurred at Balboa Heights and vicinity only, other points on the Isthmus reported rainfall slightly below normal. The 57 year average at Cristobal for November is 21.42 inches, and the highest month of record (November, 1862) is 43.01 inches.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending December 1, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Grootendijk	Holland-American Line		November 18.		62
Pastores	United Fruit Co	November 18.	November 18.	57	759
Heredia	United Fruit Co	November 18.	November 19.	644	65
Hans Arp	Royal Netherlands S. S. Co	November 18.	November 19.	819	[2]
James McGee	Standard Shipping Co	November 18.	November 19.	15,700	[2]
Cid	Pacific Steam Navigation Co	November 18.	November 20.	146	303
Santa Teresa	Grace Line	November 19.	November 19.	[1]	4
Santa Cruz	Grace Line	November 19.	November 19.	200	162
Loriga	Pacific Steam Navigation Co	November 19.	November 20.	61	78
Rugia	Hamburg-American Line	November 19.	November 20.	[1]	282
Ulua	United Fruit Co	November 19.	November 21.	950	19
August Leonhardt	Colombian Transport Co	November 20.	November 21.	50	[2]
Wanks	Standard Fruit & S. S. Co		November 21.		11
Venezuela	Royal Netherlands S. S. Co	November 21.	November 21.	58	[2]
Carmania	R. Feuillebois	November 21.	November 21.	[1]	31½
Suriname	United Fruit Co	November 21.	November 22.	592	48
Zacapa	United Fruit Co	November 21.	November 22.	434	1,244
Portland	Hamburg-American Line	November 21.	November 22.	6¼	272
Pacific Pioneer	Furness, Withy & Co	November 21.	November 22.	[1]	339
Gatun	Standard Fruit Co	November 21.	November 23.	247	805
Mantaro	Peruvian Line	November 21.	November 23.	1,865	[2]
Cristobal	Panama Railroad S. S. Line	November 21.		3,496	
Borga	Fred Olsen & Co	November 22.	November 22.	[1]	15
Orbita	Pacific Steam Navigation Co	November 22.	November 22.	86	197
Frankenwald	Hamburg-American Line	November 22.	November 22.	19	10
Teutonia	Hamburg-American Line	November 22.	November 22.	127	64
Nariva	Royal Mail Steam Packet Co	November 22.	November 23.	58	91
Finn	Colombian Transport Co	November 22.	November 23.	100	[2]
Virgilio	Italian Line	November 22.	November 23.	341	[2]
West Camargo	McCormick S. S. Co	November 22.	November 23.	200	[2]
Coppename	United Fruit Co	November 22.	November 22.	65	¾
Wyneric	Anglo-Saxon Petroleum Co	November 22.	November 24.	6,551	[2]
Baarn	Royal Netherlands S. S. Co	November 22.	November 24.	350	353
Esparta	United Fruit Co	November 22.		1,013	
Dungannon	Texas Oil Co	November 23.	November 24.	6,800	[2]
Wanks	Standard Fruit & S. S. Co	November 23.		120	
La Marseilles	French Line	November 23.	November 24.	133	34
Venezuela	Royal Netherlands S. S. Co	November 23.	November 24.	[1]	664
Wayfarer	Harrison Line	November 23.		595	
Vaba	T. P. Galliger & Co	November 24.		7,670	
Georgie	French Line	November 24.	November 24.	81	9
Amsterdam	Royal Netherlands S. S. Co	November 24.	November 24.	75	[2]
Durazzo	Hamburg-American Line	November 24.		816	
Commodore Rollins	United Fruit Co	November 24.	November 24.	[1]	347
Almagro	Pacific Steam Navigation Co	November 24.		58	
Cartago	United Fruit Co	November 24.		230	
Chiman	National Navigation Co		November 24.		304
Aconcagua	Chilean Line	November 21.	November 21.	[1]	250
Cristobal	Panama Railroad S. S. Line		November 25.		2,251
Almagro	Pacific Steam Navigation Co		November 25.		18
Cartago	United Fruit Co		November 26.		34
Noorderdijk	Holland-American Line	November 25.	November 26.	800	[2]
Ulua	United Fruit Co	November 25.	November 27.	40	249
Guatemala	Panama Mail S. S. Co	November 25.	November 27.	517	733
Teno	Chilean Line	November 26.	November 26.	[3]	28
Maravi	United Fruit Co	November 26.	November 26.	19	514
Nitonian	Leyland Line	November 26.	November 27.	[1]	154
Toloa	United Fruit Co	November 26.	November 28.	639	352

[1] No cargo discharged. [2] No cargo laded. [3] 1 case.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z.—Continued.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons*
Mantaro	Peruvian Line	November 26.	November 28.	(1)	279
Martha	Chr. Hannevig	November 26.	November 30.	(1)	519
Montevideo Maru	Osaka Shosen Kaisha	November 27.	November 27.	21	(2)
Wanks	Standard Fruit & S. S. Co.		November 27.		11
Durazzo	Hamburg-American Line		November 27.		842
Mayari	United Fruit Co.	November 27.	November 28.	379	442
Cali	North German Lloyd	November 27.		789	
Jamaica	Pacific Steam Navigation Co.	November 27.		397	
Linda S.	R. Feuillebois	November 28.	November 28.	(1)	34
Santa Marta	United Fruit Co.	November 28.	November 29.	726	627
Esparta	United Fruit Co.		November 29.		711
Taormina	Italian Line	November 28.	November 29.	157	423
Heluan	Hamburg-American Line	November 28.	November 30.	330	205
Hessen	Hamburg-American Line	November 28.	November 30.	67	656
Granada	Standard Fruit Co.	November 28.	November 30.	857	660
La Perla	United Fruit Co.	November 29.		1,270	
S. M. Spalding	Huasteca Petroleum Co.	November 29.	December 1...	10,100	(2)
City of San Francisco	Panama Mail S. S. Co.		November 30.		3,260
Flandre	French Line	November 29.	November 30.	227	324
Cauca	National Navigation Co.	November 29		257	
Aachen	North German Lloyd	November 29.	November 30.	67	119
Lippe	North German Lloyd	November 29.	November 30.	507	120
Baralt	Royal Netherlands S. S. Co.	November 29.	December 1...	553	280
Banan	United Fruit Co.	November 29.	December 1...	(1)	82
Mineola	N. O. & S. A. S. S. Line	November 29	November 30.	125	57
Wanks	Standard Fruit & S. S. Co.	November 30		80	
Laila	Gulf-Caribbean S. S. Co.	November 30.	December 1...	40	(2)
Levant Arrow	Standard Transportation Co.	November 30.	December 1...	1,025	(2)
Suriname	United Fruit Co.	November 30.	December 1...	107	675
Parismina	United Fruit Co.	December 1...		724	
Orduna	Pacific Steam Navigation Co.	December 1...	December 1...	5	126½
San Pablo	United Fruit Co.	December 1...		154	
Salvador	Pacific Steam Navigation Co.	December 1...		148	
Canadian Commander	Canadian National Steamships	November 30.	December 1...	44	(2)
Colombia	Panama Mail S. S. Co.	November 27.	November 28.	410	210

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending December 1, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Colombia	Panama Mail S. S. Co.	November 26.	November 27.	162	
Guatemala	Grace Line	November 27.	November 27.	26	8
Levant Arrow	Standard Transportation Co.	November 29.	November 30.	1,000	
President Van Buren	Dollar Line	November 30.	November 30.	9	
Mineola	N. O. & S. A. S. S. Co.	November 30.	November 30.	30	
City of San Francisco	Panama Mail S. S. Co.	November 30.	November 30.		1
Ruahina	New Zealand Shipping Co.	December 1...	December 4...	5	

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, White male	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.; Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Section "B:"	
Ward 5, Male, private rooms, American boys	Daily, 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, American girls	(No visitors permitted in nursery.)
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U	
Ward 14, American, male, G. U	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.00 to 4.00 p. m.
Ward 17, Colored children	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 18, White children	Daily, 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 20, Colored, female, surgical, obstetrical	
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office. Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity ..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., December 12, 1928. No. 19.

Dollar Line Announces Expansion Program.

The Dollar Steamship Company has announced the awarding of a contract to the Newport News Shipbuilding Company for increasing the passenger accommodations on three of the company's round-the-world liners and for completely remodeling the passenger quarters of the steamship *President Johnson*, formerly the Panama Pacific Liner *Manchuria*. The first of the vessels now in service to go into the yards will be the steamship *President Harrison*, on her arrival at New York in January. She will be replaced on the run by the steamship *President Johnson*. Upon completion of the work on the *President Harrison* it will be reentered in the world tour service and another vessel on the line will be sent into the yards.

Delivery of the steamship *Mongolia*, now in the intercoastal run of the Panama Pacific Line, and recently purchased by the Dollar Line, is expected within a few months. The vessel will be renamed and is to undergo alterations similar to those now under way on the steamship *President Johnson*.

In connection with the expansion program of the Dollar Line, it is reported that plans and specifications are being prepared for the three ships the company purposes building and bids will be asked for in a short time.

The Dollar Line at present has fortnightly sailings through the Panama Canal in the around-the-world service.

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *December 7, 1928.*

No. 494.

The following was received by the Hydrographic Office through the Captain of the Port, Cristobal:

BUENAVENTURA, COLOMBIA, *December 3, 1928.*

Repairs to Las Palmas light finished. Light again in operation.

(Signed) T. LOPEZ, *Captain of the Port.*

J. L. SCHLEY,
Acting Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *December 11, 1928.*

No. 496

The following was received by the Hydrographic Office through the Colon radio:

S. S. *August Leonhardt*, December 8th—A two-masted schooner was sunk in a collision in Buenaventura River. The wreck is lying north 53° east true, 2 miles from Solado Point, right in the steamship track and is very dangerous to navigation. Masts are showing about three meters above water. A light was not exhibited when we passed Saturday afternoon.

(Signed) B. SIEVERS,
Second Officer, *August Leonhardt.*

J. L. SCHLEY,
Acting Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 8, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From	For	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Hawaiian	1	19 30	2	6.08	2	12 41	2	13 42	American	Amer.-Hawaiian Line	404 0	54.0	20.3	Boston, Mass	Portland, Oreg	General	3,975	6,766	4,767
S. C. T. Dodd [1]	1	20 55	2	6.18	2	13.17	2	14.25	American	Standard Oil Co	425 0	57 0	19.6	New York, N. Y.	Los Angeles, Calif.	Ballast		7,481	4,975
Chelan [2]	2	6 20	2	7.32	2	13 55	3	18 40	American	U. S. Government	337 5	42 0	15.0	Boston, Mass	Seattle, Wash	Ballast			
Omphale [1]	2	4 55	2	11.20	2	17 37	2	19.08	French	French Line	422 4	57.0	20.9	Rouen, France	Los Angeles, Calif	Ballast		6,871	4,635
Astoria [3]	2	13 20	2	13 40	2	19 55	2	21.10	Danish	Canadian Transp. Co	379 6	53 5	19 4	Corner Brook, N.F	Portland, Oreg	Paper	4,497	6,241	4,583
Suporteo	2	19 28	2	19 55	3	11 42	3	15.20	American	Transmarine Lines	324 0	46 2	22.0	Mobile, Ala	Seattle, Wash	(a)	4,496	3,984	2,612
Trelissick	2	19 50	2	20.05	3	12 55	3	14 15	British	Andrew Weir & Co	409 0	52 0	24.11	Galveston, Texas	Melbourne, Aust'lia	Sulphur	6,629	5,804	4,066
Edgar Quinet [4]	1 1-23	7.10	3	6.12	3	13.45	3	15.20	French	French Government	521 0	70 5	28.0	Trinidad, B. W. I	San Francisco, Cal.	Ballast			
S-16 [5]			3	6 20	3	14.50			American	U. S. Navy	231 0	21 10		Cristobal, C. Z	Balboa, C. Z				
O-7 [5]			3	6 20	3	14 50			American	U. S. Navy	172 4	18 0		Cristobal, C. Z	Balboa, C. Z				
O-9 [5]			3	6 20	3	14 50			American	U. S. Navy	172 4	18 0		Cristobal, C. Z	Balboa, C. Z				
O-6 [5]			3	6 20	3	15 05			American	U. S. Navy	172 4	18 0		Cristobal, C. Z	Balboa, C. Z				
O-8 [5]			3	6 20	3	15 05			American	U. S. Navy	172 4	18 0		Cristobal, C. Z	Balboa, C. Z				
O-10 [5]			3	6 20	3	15 05			American	U. S. Navy	172 4	18 0		Cristobal, C. Z	Balboa, C. Z				
Pacific	12–3	1 25	3	7.12	3	15.45	3	20 36	American	Argonaut S. S. Co	403 0	56 0	23 6	Baltimore, Md	Tacoma, Wash	General, steel	7,328	6,517	4,723
Dio	3	1 45	3	7.42	3	16 20	3	18 30	American	Redwood Line	386 0	52 0	17.0	New Orleans, La	San Francisco, Cal.	General	2,914	5,708	4,131
Brandanger [1]	3	9 10	3	9.45	3	16 26	3	18 32	Norwegian	Westfal, Larsen & Co	381 6	53 6	18 0	Buenos Aires, Arg	Vancouver, B. C.	General	2,996	6,289	4,722
Vikingstar	3	10.30	3	10.45	3	17 49	4	18.00	British	Blue Star Line	401 0	52.0	19.6	Havre, France	Vancouver, B. C.	Ballast		6,870	4,909
Saale [3]	3	11.35	3	11 55	3	18 57	3	20.00	German	North German Lloyd	470 0	61.1	22 11	Hamburg, Germany	Vancouver, B. C.	General	4,885	9,335	6,844
Baraduce [6]			3	6 25	3	14 57			American	U. S. Navy	149 3	30.0		Cristobal, C. Z	Balboa, C. Z				
Hanley	3	18 15	3	18.30	4	9 34	4	10 46	American	Norton, Lilly & Co	440 0	56 0	25.0	New York, N. Y.	Seattle, Wash	General	9,518	8,310	6,005
Ferncliff [3]	4	3 20	4	6.20	4	13 45	4	15 20	Norwegian	Fern Line	386 0	53 6	24 4	New Orleans, La	Kobe, Japan	(b)	6,488	6,112	4,284
Sylvafield [3]	4	5 05	4	6 20	4	14 38	4	2[illegible] 25	British	Hunting & Son	395 0	52 5	18.3	Newcastle, England	Los Angeles, Calif	Ballast		5,900	3,993
Holmpark	3	22 25	4	7.20	4	14 58	4	16.35	British	J. & J. Denholm, Ltd	423 5	56 0	18 0	Porto Ferrajo, Italy	Arica, Chile	Ballast		6,449	4,659
Amerikaland [3]	4	8.25	4	8.45	4	15 45	4	21.40	Swedish	Ore S. S. Corp	561 0	72 2	21.6	Baltimore, Md	Cruz Grande, Chile	Ballast		15,560	4,496
Pat Doheny [3]	4	12.05	4	12.20	4	20.08	4	21.15	American	Richfield Oil Co	430.2	59 2	20.0	Bayonne, N. J.	Los Angeles, Calif	Ballast		7,978	5,840
Glentworth	4	12.25	4	12.35	4	20 58	4	22 20	British	J. H. Winchester	450 0	55 5	16.6	Manchester, Eng	Vancouver, B. C.	Ballast		7,999	5,867
Galveston [4]	4	4 55	4	13.14	4	21 30			American	U. S. Navy	202.0	44 5	18.0	Nicaragua	Balboa, C. Z				
Texas Maru	4	13.00	4	19.55	5	9 29	5	12 20	Japanese	Kokusai Kiseu Kaisha	425.0	53 6	27.0	Galveston, Texas	Nagasaki, Japan	(c)	6,869	6,899	5,139
K. R. Kingsbury [1]	4	7.30	5	6.10	5	13 10	6	2 30	American	Standard Oil Co	440 0	53 2	19.3	Baton Rouge, La	Los Angeles, Calif	Gasoline	(10)	9,033	5,938
Nevadan	4	23 45	5	6.10	5	14 40	5	16.30	American	Amer.-Hawaiian Line	469 0	57 8	25.6	Boston, Mass	Seattle, Wash	General	2,650	6,829	4,627
Bowes Castle	5	3.05	5	9.30	5	17.31	5	18.55	British	James Chambers & Co	418 0	56 0	23.10	New York, N. Y.	Hongkong, China	General, case oil	5,800	6,675	4,712
Cali	1 1-27	17.25	5	10.40	4	18 11	5	21.12	German	North German Lloyd	228.0	32.0	14.8	Cristobal, C. Z	Buenaventura, Col.	General	290	1.105	698
Horace Luckenbach	12–5	9.05	5	12.10	5	18 30	5	22.27	American	Luckenbach Line	445.0	58.0	21 6	Boston, Mass	Seattle, Wash	General	4,556	8,699	6,363
Sciota			5	10.05	5	17 31			American	U. S. Navy	149 3	30.0		Cristobal, C. Z	Balboa, C. Z	(11)			
Oriole	5	17.00	5	17.10	6	9.01	6	10.15	American	Quaker Line	410.5	54.2	19.0	Philadelphia, Pa	Seattle, Wash	General	4,137	6,755	4,873

[1] Tanker. [2] Coast Guard cutter. [3] Motor ship. [4] Cruiser. [5] Submarine. [6] Tug. [7] Pig iron, and general. [8] Cotton, pig iron, and general. [9] Cotton and scrap iron. [10] 18,540 barrels. [11] Towing barge.

Axel Johnson [1]	5	13	50	6	6	10	6	12	55	6	18	15	Swedish	Johnson Line	409	0	52	6	21	4	Gothenburg, Swed'n	San Francisco, Cal.	General, coffee	4,692	6,642	4,860
Poleric	5	20	15	6	6	20	6	13	50	6	15	35	British	Bank Line, Ltd	461	5	52	1	28	0	New York, N. Y.	Saigon, China	General	7,224	8,255	5,944
Orient	6	3	05	6	7	10	6	14	24	6	15	35	American	Oriental Navigation Co.	376	0	52	0	17	3	Newport News, Va.	Seattle, Wash	General	3,126	5,455	3,879
Willkeno	6	5	10	6	7	20	6	14	54				American	Williams S. S. Line	415	0	55	6	21	5	Norfolk, Va.	Seattle, Wash	Steel, general	6,200	7,750	5,805
Linton [1]	6	6	45	6	8	25	6	15	14	7	3	02	British	Avenue Shipping Co	375	0	52	0	19	0	New York, N. Y.	Suva, Fiji Islands.	General	3,684	6,217	4,680
Queenswood	6	7	45	6	8	25	6	16	59	6	18	15	British	J. Constantine S. S. Line	370	0	56	0	20	0	Cardiff, England	Puntarenas, C. R.	Patent fuel	5,500	4,973	3,581
Jamaica	11-27	17	30	6	9	20	6	17	01	6	18	15	British	Pacific Steam Nav. Co	223	0	24	0	13	7	Cristobal, C. Z	Champerico, Guat	General	776	1,187	622
Pacific Pine	12-6	9	50	6	10	00	6	17	25	6	18	25	American	Dimon S. S. Co	410	5	54	3	20	0	New York, N. Y.	Seattle, Wash	General	4,080	6,583	4,808
Guayaquil	4	21	00	6	10	35	6	17	47	6	18	52	American	Panama R. R. S. S. Line	251	0	43	6	19	10	New York, N. Y.	Guayaquil, Ecuador	General	1,638	2,874	1,944
Tredinnick	6	6	50	6	11	05	6	18	14	6	19	40	British	Hain S. S. Co	400	8	52	1	19	0	Montreal, Canada	Geelong, Australia	General	2,620	6,004	4,469
La Perla	6	6	10	6	14	15	6	20	12	6	21	24	American	United Fruit Co	325	2	48	1	20	5	Perme, R. P.	San Francisco, Cal.	Bananas, coffee	362	4,033	2,261
Royal Arrow [1]	6	18	15	6	18	20	7	11	02	7	12	05	American	Standard Transp. Co.	467	6	62	7	18	0	New York, N. Y.	Los Angeles, Calif	Ballast		9,699	6,895
Oroya	6	16	50	7	6	08	7	13	24	7	14	40	British	Pacific Steam Nav. Co.	525	0	62	3	25	6	Liverpool, England	Valparaiso, Chile	General	4,551½	13,137	9,067
Mississippi	5	22	40	7	6	25	7	14	11	7	15	45	French	French Line	410	0	52	4	20	0	Havre, France	Talcahuano, Chile	General	2,447	7,156	4,984
Utacarbon [1]	4	19	45	7	7	00	7	14	42	7	14	45	American	Union Oil Co	435	0	56	0	17	8	Cristobal, C. Z	Los Angeles, Calif	Ballast		7,482	5,209
Banan	5	21	35	7	7	00	7	14	47	7	21	15	Norwegian	United Fruit Co	250	0	34	7	16	9	Port Limon, C. R.	Puntarenas, C. R.	General	1,269	1,680	986
Perene	6	9	20	7	7	30	7	15	57	7	17	15	Peruvian	Peruvian Line	270	0	39	0	16	6	New York, N. Y.	Callao, Peru	General	1,670½	2,168	1,529
Norwich City	6	26	00	7	8	35	7	16	31	7	22	24	British	Canadian Transp. Co.	397	0	53	0	24	6	Guantanamo, Cuba	San Francisco, Cal.	Sugar	7,544	6,051	4,514
Arizona	7	30	10	7	8	35	7	16	41	7	17	50	French	French Line	425	0	54	8	21	0	Havre, France	Vancouver, B. C.	General	2,720	7,097	4,936
Ebro	6	23	10	7	10	00	7	17	20	7	18	25	British	Pacific Steam Nav. Co	450	0	57	0	25	11	New York, N. Y.	Talcahuano, Chile	General	4,105	9,291	6,301
Canadian Miller	7	2	00	7	9	55	7	17	40	7	21	30	British	Can. Nat. Steamships	400	3	52	0	22	5	Montreal, Canada	Vancouver, B. C.	General	6,880	5,892	4,186
Britte	6	23	45	7	10	10	7	18	22	7	19	37	Swedish	Colombian Mari. Co	256	0	39	0	14	0	New York, N. Y.	Buenaventura, Col.	[12]	566	1,715	1,078
Sunbeam [1]	7	9	10	7	11	05	7	19	10	7	21	50	American	Sun Oil Co	429	3	59	2	19	0	Philadelphia, Pa.	Los Angeles, Calif	Ballast		7,709	5,562
Brunswick [1 3]	7	8	20	7	11	35	7	20	05	7	21	15	Panaman	Atlantic Oil Ship. Co	471	0	63	0	22	0	London, England	Los Angeles, Calif	Ballast			
Spondilus [1 3]	7	10	05	7	11	55	7	19	44	7	23	30	British	Anglo-Saxon Pet. Co	440	4	59	5	20	0	Amsterdam, Holl.	Los Angeles, Calif	Ballast		7,915	4,797
Peterton	7	11	45	7	12	32	7	20	27	7	21	30	British	E. Stoddard & Clayton.	400	0	52	3	16	6	Marseillaise, France	Vancouver, B. C.	Ballast		5,885	4,144
Leme [1]	7	3	20	7	14	26	7	21	40	7	23	15	Italian	Nav. Libera-Triestina	450	0	57	0	17	10	Trieste, Italy	Vancouver, B. C.	General, bananas	2,429	8,805	6,497
Fernmoor	7	13	18	7	20	30	8	9	20	8	10	30	British	Empire Shipping Co	399	9	52	9	15	0	Liverpool, England	Vancouver, B. C.	Ballast		5,959	4,246
Unbe Mendi	7	15	00	7	21	10	8	9	56	8	11	22	Spanish	Sota and Aznar	376	0	50	0	13	0	Sagunto, Spain	Guaymas, Mexico	Ballast		4,654	3,357
Radnorshire	7	14	45	8	6	08	8	13	25	8	15	20	British	Royal Mail S. P. Co	412	0	55	6	19	3	Rotterdam, Holland	Vancouver, B. C.	General		6,898	4,887
Cauca	11-29	22	55	8	6	03	8	15	14	8	19	20	Colombian	National Navigation Co.	197	2	22	0	11	0	Cristobal, C. Z	Buenaventura, Col.	General	408	238	163
Fifleigh	12-7	17	25	8	6	20	8	14	12	8	15	20	British	W. J. Tatem	395	0	55	0	15	0	Alexandria, Egypt	Vancouver, B. C.	Ballast			
Howick Hall	7	19	40	8	7	05	8	15	12	9	18	05	American	U. S. Steel Product's Co.	400	0	51	0	26	0	Philadelphia, Pa	Corral, Chile	General	5,968	6,095	4,381
Bloemfontein	8	0	10	8	7	30	8	16	36	8	18	00	British	Norton, Lilly & Co	401	0	50	0	20	5	New York, N. Y.	Auckland, N. Z.	General	2,161	5,673	4,153
Eastern City	8	2	50	8	7	40	8	15	32	8	20	07	British	Egger For'ter & Parker.	400	0	53	0	15	6	Barry, England	Vancouver, B. C.	Ballast		6,024	4,362
Yomachichi [1]	8	3	30	8	8	20	8	17	15	8	21	25	American	Roosevelt, S. S. Co.	402	0	54	0	25	0	Baltimore, Md	Shanghai, China	General, oil	6,280	6,996	5,042
City of Tokio	8	3	50	8	8	30	8	18	10	8	19	25	British	Ellerman Lines, Ltd	442	0	58	0	27	0	New York, N. Y.	Fremantle, Aust'lia.	General	5,654	9,085	6,933
William H. Doheny [1]	8	4	05	8	9	05	8	18	01	8	19	20	American	Huasteca Petroleum Co.	435	0	56	2	21	0	Norfolk, Va	Los Angeles, Calif	Ballast		7,406	5,111
Florence Luckenbach	8	6	35	8	9	40	8	18	43	8	20	07	American	Luckenbach Line	401	0	52	0	22	6	New Orleans, La	Seattle, Wash	General	5,568	6,002	4,621
Hampton Roads [1]	8	8	25	8	10	15	8	18	59	8	20	07	American	Atlantic Refining Co	430	0	59	2	21	0	New York, N. Y.	La Libertad, Ecd'r.	Ballast		8,093	5,347
Gisla [2]	8	7	15	8	10	30	8	20	55	8	21	45	Norwegian	Biorn Biornstad & Co.	360	5	51	0	22	6	Galveston, Texas	Yokohama, Japan	[13]	5,808	5,101	3,735
Pacific Trader [3]	6	22	00	8	11	17	8	19	32	9	1	18	British	Furness, Withy & Co.	420	0	58	0	19	8	Glasgow-England	Vancouver, B. C.	General, bananas	2,253½	7,905	5,869
Meissonier	8	5	58	8	11	53	8	19	50	8	21	10	British	N. Pacific Coast Serv.	440	0	56	0	23	0	Dartmouth, Eng.	Vancouver, B. C.	General	938½		
Oxelosund [1]	8	9	25	8	12	35	8	20	41	8	22	00	Swedish	Strauss & Co	393	0	53	5	13	0	Chester, Pa	Vancouver, B. C.	Ballast		6,061	4,020
Californian [1]	8	9	35	8	13	05	8	21	16	8	22	25	American	Amer.-Hawaiian Line	445	0	59	8	18	4	Newport News, Va.	San Francisco, Cal.	Ballast		8,567	6,020
Vulcan City	8	9	47	8	13	15	8	21	35	8	22	40	British	R. Smith & Co	420	0	54	5	16	6	Barry, England	Portland, Oreg	Ballast		6,870	5,043

[1] Tanker.

[12] General, kerosene, gas, and cattle.

[13] Phosphates and cotton.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—Continued.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo Nature.	Cargo Tons.	Panama Canal tonnage. Gross.	Net.
Sunoil [1]	8	9.48	8	14 05	8	22 05	8	23 18	American	Sun Oil Co	480 6	66 0	21 0	Chester, Pa	Los Angeles, Calif	Ballast		9,610	6,396
Atreus	8	9.15	8	14 35	8	22 17	8	23.50	Greek	Rethymnis & Kul'dis	370 0	50 0	15 0	Cardiff, England	Arica, Chile	Ballast			
Francis E. Powell [2]	8	11 40	8	14 50	8	22 55	9	00 05	American	Atlantic Refining Co	431 0	59 2	20 0	Providence, R. I.	Los Angeles, Calif.	Ballast		7,860	5,101
Iowan	8	13.45	8	15.35	8	23 02	9	00.05	American	Amer.-Hawaiian Line	407 7	53 7	18 8	Boston, Mass	Portland, Oreg	General	3,135	7,079	5,028
Brazil Maru	8	14 05	8	16 08	8	23 50	9	1 05	Japanese	Kokusai Kisen Kaisha	385 0	51 0	26 0	New York, N. Y	Moji, Japan	General	6,568	5,915	4,423

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo Nature.	Cargo Tons.	Panama Canal tonnage. Gross.	Net.
Acacia [14]	11	18 16 38	2	6 11	2	11 25	3	9 55	American	U. S. Government	172 0	32 0	12 8	Balboa, C. Z	San Juan, P. R.				
San Francisco [1]	12	2 3.00	2	6 58	2	13.35	2	16.40	German	Hamburg American Line	432 3	54 1	26 0	Vancouver, B. C.	Hamburg, Germany	General	7,134	8,454	6,344
Abodi Mendi	2	4 00	2	8.29	2	16 20	2	17 10	Spanish	Sota & Aznar	400 0	53 0	25 2	Taltal, Chile	Azores [1]	Nitrates	8,107	6,009	4,051
Taifun	1	20 00	2	8 56	2	17.45	2	19 10	German	Kauffahrtei A. G	312 4	55 8	26 6	Vancouver, B. C.	Leixoes, Portugal	Wheat	9,020		
Charles Christenson	2	5.50	2	9 26	2	17 30	2	17 30	American	Arrow Line	499 7	54 2	24 7	Los Angeles, Calif	New York, N. Y.	Lumber	7,115	6,693	4,915
Charles R. McCormick	2	7.45	2	10 10	2	18 10	2	18 10	American	Munson, McCor'k Line	401 5	53 2	26 6	San Francisco, Cal.	Philadelphia, Pa.	Lumber, general	9,000	7,082	5,167
Willpolo	2	11.45	2	12 27	2	19 30	2	19 39	American	Williams S. S. Line	386 8	52 2	24 6	Port Alberni, B. C.	New York, N. Y.	Lumber, general	5,439	5,680	4,080
West Mindo	2	12 10	2	12 55	2	20 10	2	20 10	American	Calif. & East'n S. S. Co	410 0	54 1	25 6	Olympia, Wash.	Philadelphia, Pa.	Lumber	8,380	6,473	4,682
Cambrai [16]	11	20 18 03	2	14 30	2	20 40	2	20 40	American	Army Transport Service	448 0	58 2	22 8	Balboa, C. Z	New York, N. Y	Household goods	45		
Launch			2		2				American	U. S. Army				Balboa, C. Z	Miraflores, C. Z				
Santa Maria [15]	12	2 14.50	3	6 05	3	12 45	3	19 05	American	Grace Line	466 9	64 9	26 6	Talcahuano, Chile	New York, N. Y.	Copper, nitrates	5,315	10,350	6,382
Gothicstar	2	22.00	3	6 40	3	14 12	3	14 12	British	Blue Star Line	420 5	54 7	22 6	Vancouver, B. C.	Hull, England	[18]	4,242	7,521	5,852
Feltore	3	4 45	3	7 34	3	15 47	3	15 47	American	Ore S. S. Corp	449 1	57 2	29 8	Cruz Grande, Chile	Baltimore, Md	Iron ore	11,000	7,808	5,139
Sagaland	3	7 00	3	8 04	3	15 53	3	16 55	Swedish	Axel Brostrom & Son	446 0	54 2	25 0	Vancouver, B. C.	Hull, England	Wheat	8,556	6,840	5,014
Yuri Maru	3	8 15	3	8 56	3	16 45	3	20 20	Japanese	Kokusai Kisen Kaisha	425 0	53 7	28 7	Vancouver, B. C.	Rotterdam, Holland	Wheat	9,070	6,909	5,147
Arkansas	3	10 20	3	11 16	3	19 40	4	16 05	French	French Line	400 0	53 0	28 7	Vancouver, B. C.	Havre, France	General	9,278	7,678	5,563
Cerigo	3	11 20	3	12 19	3	19 30			German	Hamburg-American Line	227 2	34 0	13 6	Guayaquil, Ecuador	Cristobal, C. Z	[19]	736	1,572	1,011
Suneweo	3	15 57	3	16 26	4	11 05	4	10 05	American	Transmarine Lines	324 0	46 2	23 6	Seattle, Wash	Port Newark, N. J.	Lumber	4,100	3,984	2,612
Sciota			3	8 05	3	15 35			American	U. S. Navy	155 0	29 0		Balboa, C. Z	Cristobal, C. Z				
Ruahine	1	1 30	4	6 21	4	14 05	4	18 35	British	N. Z. Shipping Co	489 6	63 2	25 6	Napier, N. Z	Southampton, Eng.	Frozen, general	5,665	11,443	8,417
El Lobo [1]	3	19 30	4	6 35	4	14 05	4	14 05	British	C. T. Bowring & Co	385 0	51 0	22 6	La Libertad, Ecd'r.	Philadelphia, Pa.	Crude oil	6,192	4,851	3,326
Prionas	3	19 00	4	7 10	4	17 00	4	17 45	Greek	Carras Steam Nav. Co	364 0	47 2	23 0	Tocopilla, Chile	Azores [17]	Nitrates	5,700	4,602	3,460
Sudawsonco	3	20.00	4	8 34	4	17 05	4	17 05	American	Transmarine Lines	324 0	46 2	24 6	Vancouver, B. C	Newark, N. J	Lumber	4,000	3,984	2,628
Utacarbon [1]	3	17.45	4	8 58	4	19 45	7	7 00	American	Union Oil Co. of Calif.	435 0	56 0	29 0	Los Angeles, Calif	Cristobal, C. Z	[20]	9,467	7,482	5,209
Canadian Conqueror	3	22.30	4	9 15	4	17 18	4	17 18	British	Can. Nat. Steamships	400 0	52 3	18 7	Auckland, N. Z	Halifax, N. S.	General	1,082	5,954	4,139
Collegian	3	21 30	4	9 30	4	18 30	5	1 05	British	T. & J. Harrison	435 0	56.2	24 9	Vancouver, B. C.	London, England	General	8,200	7,712	5,437

[1] Tanker. [14] Lighthouse tender. [15] Motor ship. [16] U. S. Army transport [17] For orders. [18] Chilled apples and general. [19] Coffee, cocoa, and hides. [20] Fuel oil and gasoline.

Missourian [15]	4	7.00	4	9.48	4	19.05	4	19.05	American	Amer.-Hawaiian Line	443.0	59.8	28.0	Portland, Oreg.	New York, N. Y.	Lumber, general	8,729	8,567	6,020
Lillian Luckenbach	4	10 00	4	10.25	4	19.30	4	19.30	American	Luckenbach Line	448.9	60.2	31.6	Portland, Oreg.	Boston, Mass	Lumber, general	8,900	9,294	6,865
Laurel	4	10 30	4	11.15	4	20 10	4	20.10	American	States S. S. Co.	410 5	54.2	27 0	San Francisco, Cal.	Wilmington, Del.	(24)	6.973	6,756	4,874
Wearpool	4	10.45	4	12.02	4	21.18	5	1 40	British	Sir. R. Ropner & Co.	390.5	55.5	22 9	Vancouver, B. C.	Hull, England	Wheat	7,852	5,920	4,435
Federiko Glavic	4	15 30	4	16.10	5	12.40	5	13.50	Yugoslav	Dubrovacka Plovidba	423.6	54.7	25 0	Tocopilla, Chile	Azores [17]	Nitrates	9,380	6,839	5,208
Laguna [15]	4	11.40	4	16.44	5	11.05	5	11.45	British	Pacific Steam Nav. Co	423 5	54 2	27 6	Talcahuano, Chile	Liverpool, England	General	4,878	7,139	4,640
Mongolia	4	14.08	5	6 24	5	14 25	5	14.56	American	Panama Pacific Line	600.0	65 3	30.6	San Francisco, Cal.	New York, N. Y.	(25)	7.226	17,041	11,426
W. L. Steed [1]	4	17.50	5	6 39	5	15 20	5	15.20	American	Huasteca Petroleum Co.	416 8	56 1	27.0	Los Angeles, Calif.	New Orleans, La.	Gasoline	8.700	6.751	4,795
Simmington Court	4	16.40	5	7 05	5	16.10	5	17 00	British	Haldin & Co	420.0	56 5	24.0	Vancouver, B. C.	Hamburg, Germany	Wheat	8.644	6,963	4,958
Thames Maru	5	4 00	5	8 11	5	17 15	5	17 45	Japanese	Kawasaki Kisen Kaisha	385.0	51 0	25.6	Portland, Oreg	Dublin, Ireland	Wheat	7.452	5,928	4,381
Eagle [1]	5	4.30	5	8.34	5	17.00	5	17 00	American	Standard Transp. Co.	410.0	56 0	28 0	Los Angeles, Calif.	New York, N. Y.	Gas oil	8.340	8.201	6,226
Heffron	5	6.15	5	9.35	5	17.55	5	18.35	American	Heffron S. S. Co.	440 0	56.0	27.6	Everett, Wash	Philadelphia, Pa.	Lumber	9,000	8,312	6,097
Benmacdhui	5	21.40	6	6.36	6	14.25	6	15.50	British	Ben Line	401.0	52 1	27 6	Vancouver, B. C.	Rotterdam, Holland	Wheat	8,116	6,562	4,745
Dinteldijk [15]	5	21.25	6	7.16	6	14.25	6	16.35	Dutch	Holland-American Line	485.6	62 0	29.0	Vancouver, B. C.	Rotterdam, Holland	General	9.646	10.786	7,551
San Jose [1]	6	4.50	6	8.02	6	15.10	7	16.15	American	United Fruit Co	330.0	44 6	18 6	San Francisco, Cal.	Port Limon, C. R.	General	742	3,670	2,353
Sir Osborn Holmden [1 15]	6	3.00	6	10.04	6	17 25	6	17.25	Norwegian	A. F. Klaveness	471 8	64 0	27.6	Los Angeles, Calif	Land's End, Eng. [17]	Gasoline	12,381	9,562	6,604
Montanan	6	9 25	6	10.14	6	18.00	6	18.00	American	Amer.-Hawaiian Line	404.6	53.9	27.0	Los Angeles, Calif.	Boston, Mass	General	5,929	6,756	4,775
Dunrobin	6	14.00	6	14.58	6	22.38	7	3.50	British	DuPont de Nemours	404.9	53 0	24.2	Iquique, Chile	Charleston, S. C.	Nitrates	8,247	5,651	4,076
Capt. Crowl [21]			6		6		10		American	U. S. Army				Balboa, C. Z	Pedro Miguel, C. Z.				
Acajutla	6	17.25	7	6.11	7	16.35			British	Pacific Steam Nav. Co	215 7	33 5	14 0	San Jose de Guate	Cristobal, C. Z	(26)	258[3]	1.273	706
Canadian Victor	6	21.15	7	6.33	7	16 50	7	20.53	British	Can. Nat. Steamships	400.0	52 4	19.0	Adelaide, Australia	Halifax, N. S.	General	1,577	5,956	4,172
Boskoop	6	21 50	7	6.54	7	17.55	8	00.37	Dutch	Royal Neth. S. S. Co.	400 0	58 3	26.3	Corral, Chile	Europe	Nitrates, general	7,848	7,817	6,097
San Pedro	6	23 09	7	8.10	7	18 08	7	18 08	American	Hammond Lumber Co	289 0	44 1	21 3	Seattle, Wash	New York, N. Y.	Lumber	3,400	2,637	1,701
Point Fermin	7	5 10	7	8 25	7	18.10	7	18 10	American	Swayne & Hoyt	324 0	46 2	24 0	Portland, Oreg	New Orleans, La.	General	3,834	3,984	2,617
Pensylvanie	7	8.00	7	8.47	7	19.15	7	20 25	French	French Line	400 0	52 5	26 0	Talcahuano, Chile	Le Havre, France	(22)	7.976	5,964	4,384
Atrato [15]	5	4.30	7	8.56	7	17.50			Colombian	Colombian Transp. Co	91 0	23.0	7 0	Buenaventura, Col.	Cristobal, C. Z	General	117	160	92
Curaca	7	8 20	7	9 41	7	20 15	7	22 50	American	Grace Line	403 0	52 4	29.4	Coquimbo, Chile	New York, N. Y.	General	8.897	6.804	4,897
Nienburg	7	9.30	7	10 12	7	20 20	8	13 55	German	North German Lloyd	369 7	51 0	23 6	San Antonio, Chile.	Bremen, Germany	(23)	5.606	4,813	3,361
Argun Maru	6	23.20	7	11 08	7	21 20	8	00 07	Japanese	Osaka Shosen Kaisha	415.0	55 5	21 3	Hongkong, China	New York, N. Y.	(23)	5,243		
Sommerstad [15]	7	11 20	7	12 09	7	21 50	8	8 25	Norwegian	Cities Service Co	381.0	55 2	27 3	Los Angeles, Calif.	London, England	Gasoline	7,757	5,994	3,876
Bethore	6	22.10	7	15 52	8	15 05	8	15 05	American	Ore S. S. Corp	550.0	72 2	34 6	Cruz Grande, Chile	Baltimore, Md	Iron ore	19.890	15,476	4,354
M. D. [21]			7		8				American	J. A. Mhoon	35 7	10.4	4.8	Balboa, C. Z	Gatun Lake, C. Z.			16	14
Sylvan Arrow [1]	7	16 50	8	6.13	8	19.55	8	19.55	American	Standard Transp. Co.	467 6	62.7	28.0	Los Angeles, Calif.	Providence, R. I.	Kerosene	12.300		
Andreas K.	7	18 50	8	7.02	8	20.15	8	21 25	Greek	Margaronis Brothers	361 0	46.2	24.7	Iquique, Chile	Gibraltar [17]	Nitrates	6,000	4,367	3,161
Buenaventura	7	21.47	8	7 28	8	21 08	9	14.05	American	Panama R.R.S.S. Line	251 0	43 0	16.0	Guayaquil, Ecuador	New York, N. Y.	(30)	969	2.873	1,776
Cleveland [22]	7	22.20	8	8.00	8	21.00			American	U. S. Navy	292 0	44 0		Guayaquil, Ecuador	Cristobal, C. Z				
Knoxville City	8	1.00	8	8 39	8	21.35	8	21.35	American	Evans & Sons	424.2	56.2	26 4	Vancouver, B. C.	Avonmouth, Eng.	Wheat, general	8,090	7,611	5,450
Georgios M.	7	21.00	8	9.36	8	22.30	9	6 45	Greek	N. Kulukundis	381 0	49 0	25.2	Tocopilla, Chile	Azores [17]	Nitrates	6,000		
Gen. G. W. Getty [23]			8	6 30	8	19.15	9	9.30	American	U. S. Army	98.0	22.0		Balboa, C. Z	Cristobal, C. Z				
Chateau Thierry [21]	7	2.00	8	10.19	8	19 20	9	11 10	American	U. S. Army	448.0	58.0	25 0	San Francisco, Cal.	New York, N. Y.	Army supplies	143		
Ravenscar	8	2.00	8	11 13	8	22 50	9	6 34	British	Smith Pritchard & Co.	360.0	50 3	25.0	Suva, Fiji Islands.	Liverpool, England	Sugar	5.790		
Cedarhurst	8	11 00	8	12.33	8	23.35	9	23 35	American	T. P. Gallagher & Co	390.0	54 2	27.0	Manila, Philippines	New York, N. Y.	Coconut oil	6,243	6,209	4,303
England Maru	8	13 30	8	14 24	9	00 30	9	5 07	Japanese	Kokusai Kisen Kaisha	385 0	52.0	23 8	Vancouver, B. C.	Antwerp, Belgium	Wheat	7,700	6,214	4,665
Chelatros	8	13.32	8	15.07	9	00.35	9	10.00	Greek	Rethymnis & Kul'dis.	360 0	52.0	23 8	Tocopilla, Chile	Azores [17]	Nitrates	6,600	4,715	3,384

[1] Tanker. [21] Launch. [22] Cruiser. [23] Tug. [24] Lumber, wheat, and general. [25] Canned fish, fruit, and general. [26] Coffee, sugar, hides, bullion, and general. [27] Sugar, nitrates, and general [28] Nitrates, copper, and general. [29] Tea, rice, wood oil, wool, and general. [30] Coffee, tagua, and wool.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
December 2.	Toloa	United Fruit Co	Port Limon, Costa Rica.
December 3.	Mercian	Leyland Line	Liverpool, England.
December 3.	Calamares	United Fruit Co	New York via Habana.
December 4.	William M. [31]	G. I. Bryan	Colon, R. P.
December 5.	Cavina	Elders & Fyffes, Ltd	Avonmouth via wayports.
December 5.	Gatun	Standard Fruit & S. S. Co	New Orleans, La.
December 5.	Coppename	United Fruit Co	New Orleans, La.
December 5.	Ancon	Panama Railroad S. S. Line	New York via Haiti.
December 5.	Metapan	United Fruit Co	New York via Kingston.
December 5.	Van Renselaer	Royal Netherlands S. S. Co	Amsterdam via wayports.
December 5.	Hidelfjord	C. Olsen	Curacao, D. W. I.
December 6.	Anachucuna [32]	United Fruit Co	Colon, R. P.
December 6.	Cuba	Hamburg-American Line	Tampico, Mexico.
December 7.	Anachucuna [32]	United Fruit Co	Colon, R. P.
December 7.	Saramacca	United Fruit Co	Bocas del Toro, R. P.
December 7.	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
December 7.	Van Renselaer	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
December 8.	Franconia	Cunard Line	New York via wayports.
December 8.	Heredia	United Fruit Co	New Orleans via Habana.
December 8.	Linda S. [33]	Surgeon Brothers	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
December 2.	Toloa	United Fruit Co	New York via Habana.
December 3.	Parismina	United Fruit Co	New Orleans and wayports.
December 4.	William M. [31]	G. I. Bryan	Bluefields, Nicaragua.
December 4.	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
December 5.	Mercian	Leyland Line	Casilda, Cuba.
December 5.	Denver	U. S. Navy	Bluefields, Nicaragua.
December 5.	Cavina	Elders & Fyffes, Ltd	Bristol via wayports.
December 5.	Van Renselaer	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
December 5.	Calamares	United Fruit Co	Port Limon, Costa Rica.
December 6.	Metapan	United Fruit Co	New York via wayports.
December 6.	Coppename	United Fruit Co	Port Limon and Bocas.
December 6.	Anachucuna [32]	United Fruit Co	Colon, R. P.
December 7.	Anachucuna [32]	United Fruit Co	Colon, R. P.
December 7.	Cuba	Hamburg-American Line	Hamburg via wayports.
December 7.	Gatun	Standard Fruit & S. S. Co	New Orleans and wayports.
December 7.	Saramacca	United Fruit Co	New Orleans, La.
December 8.	Franconia	Cunard Line	New York via wayports.
December 8.	Van Renselaer	Royal Netherlands S. S. Co	Amsterdam via wayports.
December 8.	Hidelfjord	C. Olsen	Curacao, D. W. I.
December 8.	Linda S. [33]	Surgeon Brothers	Bluefields, Nicaragua.

[31] Schooner. [32] Motor boat. [33] Motor schooner.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
December 3.	San Luis [34]	Chiriqui Land Co	Puerto Armuelles, R. P.
December 5.	Cricamola [35]	Chiriqui Land Co	Puerto Armuelles, R. P.
December 5.	El Colon [14]	H. Elliot	El Real, R. P.
December 5.	A. B. de Obarrio [34]	Pacific Fruit Co	Bayano River, R. P.
December 5.	Dos Hermanos [34]	A. Valdez	Bayano River, R. P.
December 5.	Somme [36]	U. S. Army	San Francisco, Calif.

Date.	Vessel.	Line.	For—
December 5.	San Luis [34]	Chiriqui Land Co	Puerto Armuelles, R. P.
December 5.	El Colon [34]	H. Elliot	El Real, R. P.
December 5.	A. B. de Obarrio [34]	Pacific Fruit Co	Bayano River, R. P.
December 5.	Dos Hermanos [34]	A. Valdez	Bayano River, R. P.
December 6.	Somme [36]	U. S. Army	San Francisco, Calif.

[14] Motor schooner. [15] Motor ship. [16] U. S. Army transport. * Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in November, 1928, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of November, 1928, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for November, 1927 and 1926. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	66	352,022	270,199	432,809	269,780	$308,198.16	217,358
Europe to west coast Canada:							
British	27	131,217	97,475	154,057	94,596	98,042.42	9,556
Dutch	3	18,074	13,953	22,460	13,751	16,717.62	3,604
French	1	5,196	3,349	5,693	3,499	4,186.25	2,500
German	2	13,346	8,903	15,248	9,075	11,128.75	13,100
Italian	1	6,054	5,031	7,061	4,460	6,288.75	1,247
Spanish	1	4,512	4,287	5,649	3,374	3,248.64	.....
Totals	35	178,399	132,998	210,168	128,755	139,612.43	30,007
East coast of United States to Far East:							
British	11	60,946	39,234	63,306	38,638	49,042.50	73,776
Danish	2	9,304	8,492	11,474	8,660	10,615.00	12,996
German	1	4,888	2,975	4,949	2,956	3,718.75	7,000
Japanese	8	37,297	32,667	47,507	31,755	40,290.80	43,257
Norwegian	2	8,899	4,943	8,558	4,945	6,178.75	12,990
United States	7	39,171	27,985	42,642	26,918	34,981.25	49,672
Totals	31	160,505	116,296	178,436	113,872	144,827.05	199,691
Europe to west coast of South America:							
British	5	35,868	27,034	45,677	28,096	33,792.50	18,961
Danzig	1	6,338	5,236	8,956	5,041	4,563.36	.....
Dutch	2	12,754	7,405	12,455	7,595	9,256.25	7,762
French	2	8,288	6,574	10,785	6,594	8,217.50	3,086
German	5	25,710	18,679	30,597	18,693	23,348.75	19,235
Greek	7	27,005	20,611	30,523	19,268	19,971.54	4,676
Italian	2	12,964	8,511	16,217	9,557	9,087.20	1,615
Norwegian	2	8,985	5,893	9,614	5,837	7,366.25	11,780
Spanish	1	3,729	2,960	5,087	3,000	3,700.00	347
Yugoslav	2	9,806	7,644	12,338	7,715	8,307.22	7,900
Totals	29	151,447	110,547	182,249	111,396	127,610.57	75,362
East coast of United States to west coast of South America:							
British	8	24,306	18,885	31,484	19,169	22,410.97	11,466
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,324
Danzig	1	6,063	5,196	8,932	5,002	4,365.36	.....
German	1	2,817	1,545	2,593	1,526	1,931.25	540
Swedish	1	4,421	3,743	15,339	4,377	3,183.12	.....
United States	13	59,137	48,385	83,895	47,072	48,548.14	25,525
Totals	25	101,449	81,220	149,553	81,122	84,771.34	39,855
Europe to west coast of United States:							
British	9	48,063	38,138	63,051	38,347	37,549.89	9,058
German	1	6,790	4,432	7,256	4,418	5,540.00	4,282
Japanese	1	4,570	2,716	4,615	2,705	3,395.00	7,000
Norwegian	4	19,850	15,518	25,863	15,538	16,315.80	8,772
United States	3	16,013	10,884	18,890	13,803	11,651.15	12,165
Totals	18	95,286	71,688	119,675	74,811	74,451.84	41,277
Cristobal, C. Z., to west coast of South America:							
Colombian	1	163	164	233	166	195.60	380
Dutch	1	742	294	780	323	367.50	120
German	4	3,491	2,260	4,347	2,334	2,825.00	2,098
Norwegian	1	504	423	732	391	528.75	450
Panaman	2	248	226	414	218	282.50	653
Peruvian	1	2,405	989	3,305	1,514	1,236.25	112
Totals	10	7,553	4,356	9,811	4,946	5,435.60	3,813

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of United States to west coast of Canada:							
British	4	17,650	12,338	19,950	12,329	$12,708 00	
United States	3	13,283	10,564	17,354	10,677	13,205.00	20,009
Totals	7	30,933	22,902	37,304	23,006	25,913.00	20,009
East coast of United States to Australasia:							
British	5	26,696	17,615	28,610	17,605	22,018.75	20,321
United States	1	5,268	3,763	5,879	3,689	4,703.75	1,685
Totals	6	31,964	21,378	34,489	21,294	26,722.50	22,006
Europe to Australasia:							
British	5	40,724	31,259	50,738	31,623	39,073.75	25,069
Greek	1	4,041	3,231	5,450	3,335	4,038.75	4,922
Totals	6	44,765	34,490	56,188	34,958	43,112.50	29,991
East coast of Canada to Australasia:							
British	5	27,258	20,906	33,570	20,810	26,132.50	21,561
Around the world:							
United States	1	32,525	25,350	41,062	24,370	31,687 50	17,652
East coast of United States to Philippine Islands:							
British	1	6,089	4,970	7,886	4,934	6,212 50	5,502
Danish	1	4,268	2,634	4,289	2,675	3,292.50	5,450
United States	2	11,975	8,297	13,308	8,282	10,371.25	14,598
Totals	4	22,332	15,901	25,483	15,891	19,876.25	25,550
East coast of Central America to west coast United States:							
United States	1	11,682	10,295	16,456	10,132	11,252.98	2,535
Cristobal, C. Z., to west coast of Central America:							
British	3	2,063	1,900	3,436	1,906	2,353.90	3,064
Norwegian	1	606	485	855	482	606.25	1,117
Totals	4	2,669	2,385	4,291	2,388	2,960.15	4,181
East coast of United States to Hawaiian Islands:							
United States	2	2,158	1,937	3,517	1,949	2,228.46	3,254
East coast of Canada to west coast of South America:							
British	2	12,688	10,999	18,512	11,227	9,135.36	
Cristobal, C. Z., to west coast of United States:							
Panaman	1	2,606	1,384	3,644	2,594	1,730.00	3,255
United States	1	2,367	2,087	3,304	2,071	2,608.75	807
Totals	2	4,973	3,471	6,948	4,665	4,338.75	4,062
East coast of South America to west coast United States:							
Norwegian	1	4,092	2,342	3,870	2,327	2,927.50	1,438
United States	1	9,704	7,076	12,643	6,993	8,845.00	266
Totals	2	13,796	9,418	16,513	9,320	11,772.50	1,704
Foreign vessels in ballast, U. S. intercoastal:							
British	1	9,885	8,727	16,436	9,643	7,117.20	
Canadian intercoastal:							
British	1	4,182	3,318	5,757	3,554	4,147 50	4,600
East coast of Canada to west coast United States:							
British	1	5,042	4,355	7,259	4,414	3,630.24	
West Indies to west coast of United States:							
Danish	1	1,355	1,382	1,806	1,100	1,626 00	2,000
West Indies to west coast of Canada:							
British	1	4,510	3,226	5,029	3,154	3,247.20	
South American intercoastal:							
Peruvian	1	2,959	1,515	4,617	2,427	1,893 75	359

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
East coast of South America to west coast Canada:							
United States	1	5,040	3,731	5,823	3,705	$4,663.75	2,279
East coast of South America to Far East:							
Japanese	1	5,821	4,170	7,267	4,387	5,212.50	3,273
Europe to Hawaiian Islands:							
Swedish	1	5,661	3,406	5,641	4,320	4,257.50	7,708
Europe to Far East:							
British	1	783	754	1,110	552	939.60	685
Egypt to west coast United States:							
British	1	3,650	3,303	5,674	3,261	2,628.00	
Egypt to west coast Canada:							
British	1	4,090	3,233	5,302	3,231	2,944.80	
Africa to west coast South America:							
British	1	2,658	2,320	3,491	2,153	1,913.75	
Grand totals, Nov., 1928	275	1,340,040	1,010,176	1,652,246	1,010,593	1,144,261.24	780,752
Grand totals, Nov., 1927	296	1,372,032	1,066,378	1,733,018	1,064,837	1,181,440.24	597,434
Grand totals, Nov., 1926	211	1,006,793	781,645	1,279,163	784,715	880,392.01	696,615

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	81	418,881	323,208	519,233	322,923	$404,010.00	640,941
West coast Canada to Europe:							
British	29	145,451	104,435	169,012	104,480	130,543.75	221,938
Danish	1	5,286	4,207	6,636	4,236	5,258.75	9,491
Dutch	2	13,479	10,966	17,703	10,976	13,707.50	19,545
French	2	10,434	7,461	12,428	7,490	9,326.25	16,106
German	2	9,684	6,427	10,550	6,435	8,033.75	13,358
Italian	1	5,552	4,686	7,714	4,662	5,857.50	8,593
Japanese	1	4,381	4,361	5,873	4,254	5,257.20	7,672
Norwegian	2	7,938	5,641	9,163	5,695	7,051.25	13,000
Swedish	3	15,023	11,067	18,333	13,638	13,833.75	24,053
United States	2	10,550	7,197	11,506	7,093	8,996.25	15,048
Totals	45	227,778	166,448	268,918	168,959	207,865.95	348,804
West coast of South America to Europe:							
British	6	24,410	19,798	32,093	20,072	24,747.50	38,681
Danish	1	4,623	2,989	4,750	3,006	3,736.25	7,732
Danzig	2	12,465	10,504	17,895	10,048	13,130.00	22,627
Dutch	2	10,864	6,890	11,879	6,698	8,612.50	17,281
French	1	4,312	3,743	5,903	3,743	4,678.75	7,065
German	8	37,308	28,551	46,685	28,684	35,688.75	57,654
Greek	1	4,482	3,346	5,600	3,333	4,182.50	8,100
Italian	1	6,236	4,699	8,298	5,106	5,873.75	3,746
Norwegian	1	1,678	1,310	2,406	1,284	1,637.50	3,024
Spanish	6	24,552	21,189	32,757	20,611	26,321.55	41,047
Yugoslav	2	8,949	6,873	10,860	6,887	8,591.25	16,599
Totals	31	139,879	109,892	179,126	109,472	137,200.30	223,556
West coast of South America to east coast United States:							
British	8	31,574	24,757	41,158	25,505	30,946.25	49,495
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	4,762
German	1	909	689	1,314	681	861.25	894
Swedish	3	10,430	8,793	32,276	9,816	10,991.25	42,276
United States	11	38,025	30,783	50,152	30,284	38,297.15	79,027
Totals	24	85,610	68,455	132,210	70,262	85,387.15	176,454
West coast of United States to Europe:							
British	13	55,494	44,309	70,863	44,605	55,331.60	91,725
Dutch	1	3,067	2,724	4,668	2,627	3,405.00	6,108
French	1	4,545	3,996	6,587	3,641	4,995.00	8,019
Japanese	2	8,781	8,707	11,737	8,513	10,537.20	15,272
Norwegian	1	5,822	4,877	8,030	4,814	6,096.25	10,156
Swedish	1	5,485	3,406	5,558	4,246	4,257.50	7,139
United States	1	7,895	6,052	9,832	6,019	7,565.00	13,800
Totals	20	91,089	74,071	117,275	74,465	92,187.55	152,219

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West coast South America to Cristobal, C. Z.:							
Colombian	3	989	945	1,569	959	$1,173.05	1,403
Dutch	2	1,484	588	1,560	646	735.00	873
German	4	3,178	2,372	4,230	2,428	2,965.00	2,164
Panaman	1	124	113	207	109	141.25	.....
Peruvian	2	5,364	2,504	7,922	3,941	3,130.00	3,908
Totals	12	11,139	6,522	15,488	8,083	8,144.30	8,348
Australasia to Europe:							
British	6	43,706	32,288	52,499	32,342	40,360.00	37,566
French	1	5,364	4,287	7,138	4,335	5,358.75	3,876
Totals	7	49,070	36,575	59,637	36,677	45,718.75	41,442
West coast of Canada to east coast of United States:							
British	1	4,423	2,774	4,532	2,751	3,467.50	6,000
Danish	1	4,418	3,585	5,702	3,583	4,481.25	6,687
United States	4	14,250	10,906	17,832	10,835	13,632.50	21,663
Totals	6	23,091	17,265	28,066	17,169	21,581.25	34,350
West coast United States to east coast of Central America:							
United States	6	16,310	14,595	23,439	14,436	18,190.70	12,767
Philippine Islands to east coast United States:							
British	1	5,644	3,088	5,122	3,085	3,860.00	6,547
Danish	1	2,206	1,741	2,925	1,748	2,176.25	4,216
Japanese	2	11,436	8,767	13,970	8,609	10,958.75	14,213
Totals	4	19,286	13,596	22,017	13,442	16,995.00	24,976
West coast of United States to West Indies:							
British	1	4,797	4,355	7,406	4,277	5,443.75	9,162
Dutch	1	3,657	3,158	5,304	3,043	3,947.50	7,046
United States	1	4,668	3,405	5,685	3,414	4,256.25	6,280
Totals	3	13,122	10,918	18,395	10,734	13,647.50	22,488
West coast of Central America to Cristobal, C. Z.:							
British	2	1,328	1,252	2,308	1,256	1,543.90	584
Norwegian	1	606	485	855	482	606.25	55
Totals	3	1,934	1,737	3,163	1,738	2,150.15	639
West coast of United States to east coast of South America:							
British	1	5,621	4,484	7,199	4,524	5,605.00	3,822
West coast of United States to Cristobal, C. Z.:							
Panaman	1	2,606	1,384	2,461	1,384	1,730.00	357
Canadian intercoastal:							
British	1	2,022	1,839	3,091	1,812	2,298.75	2,654
West coast of Central America to east coast United States:							
German	1	3,533	2,542	4,201	2,554	2,543.76	.....
South American intercoastal:							
Colombian	1	307	302	405	308	372.00	302
West coast of South America to east coast Canada:							
British	1	7,639	6,607	11,309	6,845	8,255.00	15,184
West coast of South America to West Indies:							
United States	1	103	187	358	198	140.25	.....
Australasia to east coast of Canada:							
British	1	4,195	3,355	5,493	3,347	4,193.75	4,450
Far East to West Indies:							
Norwegian	1	4,538	2,477	4,116	2,454	3,096.25	7,125
Balboa, C. Z., to Cristobal, C. Z.:							
Norwegian	1	504	423	732	391	362.88	.....
Grand totals, Nov., 1928	252	1,128,257	866,882	1,426,332	872,177	1,081,676.24	1,720,878
Grand totals, Nov., 1927	263	1,219,685	948,485	1,519,491	942,258	1,187,827.75	1,891,448
Grand totals, Nov., 1926	217	1,025,695	809,948	1,304,198	809,819	1,008,609.10	1,575,834

Traffic by Nationality for November, 1928.

The following tabulation shows the commercial traffic through the Canal during the month of November, 1928, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, with corresponding totals for November, 1927 and 1926:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
British	93	468,368	349,989	570,335	349,242	$385,041.34	203,619
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,324
Colombian	1	163	164	233	166	195.60	380
Danish	4	14,927	12,508	17,569	12,435	15,533.50	20,446
Danzig	2	12,401	10,432	17,888	10,043	8,928.72	.....
Dutch	6	31,570	21,652	35,695	21,669	26,341.37	11,486
French	3	13,484	9,923	16,478	10,093	12,403.75	5,586
German	14	57,042	38,794	64,990	39,002	48,492.50	46,255
Greek	8	31,046	23,842	35,973	22,603	24,010.29	9,598
Italian	3	19,018	13,542	23,278	14,017	15,375.95	2,862
Japanese	10	47,688	39,553	59,389	38,847	48,898.30	53,530
Norwegian	11	42,936	29,604	49,492	29,520	33,923.30	36,547
Panaman	3	2,854	1,610	4,058	2,812	2,012.50	3,908
Peruvian	2	5,364	2,504	7,922	3,941	3,130.00	471
Spanish	2	8,241	7,247	10,736	6,374	6,948.64	347
Swedish	5	26,095	18,033	39,870	22,500	19,091.77	19,873
United States	105	544,332	419,669	678,692	415,638	481,293.99	355,620
Yugoslav	2	9,806	7,644	12,338	7,715	8,307.22	7,900
Totals, November, 1928	275	1,340,040	1,010,176	1,652,246	1,010,593	1,144,261.24	780,752
Totals, November, 1927	296	1,372,032	1,066,378	1,733,018	1,064,837	1,181,440.24	597,434
Totals, November, 1926	211	1,006,793	781,645	1,279,163	784,715	880,392.01	696,615

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
British	71	336,304	253,341	412,085	254,901	$316,596.75	487,808
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	4,762
Colombian	4	1,296	1,247	1,974	1,267	1,545.05	1,705
Danish	4	16,533	12,522	20,013	12,573	15,652.50	28,126
Danzig	2	12,465	10,504	17,895	10,048	13,130.00	22,627
Dutch	8	32,551	24,326	41,114	23,990	30,407.50	50,853
French	5	24,655	19,487	32,056	19,209	24,358.75	35,066
German	16	54,612	40,581	66,980	40,782	50,092.51	74,070
Greek	1	4,482	3,346	5,600	3,333	4,182.50	8,100
Italian	2	11,788	9,385	16,012	9,768	11,731.25	12,339
Japanese	5	24,598	21,835	31,580	21,376	26,753 15	37,157
Norwegian	7	21,086	15,213	25,302	15,120	18,850.38	33,360
Panaman	2	2,730	1,497	2,668	1,493	1,871.25	357
Peruvian	2	5,364	2,504	7,922	3,941	3,130.00	3,908
Spanish	6	24,552	21,189	32,757	20,611	26,321.55	41,047
Swedish	7	30,938	23,266	56,167	27,700	29,082.50	73,468
United States	107	510,682	396,333	638,037	395,202	495,088.10	789,526
Yugoslav	2	8,949	6,873	10,860	6,887	8,591.25	16,599
Totals, November, 1928	252	1,128,257	866,882	1,426,332	872,177	1,081,676.24	1,720,878
Totals, November, 1927	263	1,219,685	948,485	1,519,491	942,258	1,187,827.75	1,891,448
Totals, November, 1926	217	1,025,695	809,948	1,304,198	809,819	1,008,609.10	1,575,834

(Continued on next page.)

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Traffic by Nationality.—Continued from page 267.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British	164	804,672	603,330	982,420	604,143	$701,638.09	691,427
Chilean	2	9,377	6,899	14,620	7,952	8,623.75	7,086
Colombian	5	1,459	1,411	2,207	1,433	1,740 65	2,085
Danish	8	31,460	25,030	37,582	25,008	31,186.00	48,572
Danzig	4	24,866	20,936	35,783	20,091	22,058.72	22,627
Dutch	14	64,121	45,978	76,809	45,659	56,748.87	62,339
French	8	38,139	29,410	48,534	29,302	36,762.50	40,652
German	30	111,654	79,375	131,970	79,784	98,585.01	120,325
Greek	9	35,528	27,188	41,573	25,936	28,192.79	17,698
Italian	5	30,806	22,927	39,290	23,785	27,107.20	15,201
Japanese	15	72,286	61,388	90,969	60,223	75,651.45	90,687
Norwegian	18	64,022	44,817	74,794	44,640	52,773.68	69,907
Panaman	5	5,584	3,107	6,726	4,305	3,883.75	4,265
Peruvian	4	10,728	5,008	15,844	7,882	6,260.00	4,379
Spanish	8	32,793	28,436	43,493	26,985	33,270.19	41,394
Swedish	12	57,033	41,299	96,037	50,200	48,174.27	93,341
United States	212	1,055,014	816,002	1,316,729	810,840	976,382 09	1,145,146
Yugoslav	1	18,755	14,517	23,198	14,602	16,898.47	24,499
Totals, November, 1928	527	2,468,297	1,877,058	3,078,578	1,882,770	2,225,937.48	2,501,630
Totals, November, 1927	559	2,591,717	2,014,863	3,252,509	2,007,095	2,369,267.99	2,488,882
Totals, November, 1926	428	2,032,488	1,591,593	2,583,361	1,594,534	1,889,001.11	2,272,449

United States Intercoastal Traffic by Commodities for November, 1928.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for November, 1928, and the totals for November, 1927 and 1926. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the destination of "General cargo." These statistics are accordingly not precise but they are indicative of the kind and quantity of the cargo in transit through the Canal. The figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Agricultural implements	1,069	552	1,621
Alfalfa		491	491
Alfalfa meal		614	614
Ammonia	256		256
Asbestos	140		140
Asphalt	118	254	372
Automobiles	826	270	1,096
Automobile accessories	15	66	81
Bamboo		25	25
Barley	12		12
Beans	126	8,277	8,403
Bones and bonemeal	50		50
Borax	138	1,097	1,235
Bricks	619		619
Burlap	101	13	114
Calcium carbide	27		27
Camphor		48	48
Canned goods:			
Fish	869	16,105	16,974
Fruit	234	44,842	45,076
Meat		30	30
Milk		201	201
Soup	820		820
Vegetables	3,064	6,270	9,334
Miscellaneous	3,625	5,039	8,664
Carbon black	63	75	138
Celite filtercel		810	810
Cement	674	149	823

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Charcoal	135	45	180
Chemicals	1,592	581	2,173
China and fire clay	78		78
Coal	2,407		2,407
Cocoa	47	50	97
Coconuts	12	202	214
Coffee	25	481	506
Coke	1,042		1,042
Cold storage:			
Butter		50	50
Fish		50	50
Lard	800	150	950
Meat		15	15
Other	133		133
Confectionery	453		453
Cork	13		13
Cotton	80	2,710	2,790
Drugs	629	284	913
Earthenware	516	58	574
Eggs, dried		106	106
Explosives	53		53
Fertilizer	345		345
Flour	126	6,964	7,090
Fruit:			
Dried	164	14,000	14,164
Fresh		17	17
Furniture	73		73
General	47,851	5,072	52,923
Glass and glassware	1,421	184	1,605
Glue	27		27
Graphite	10		10
Hair		92	92
Hardwoods	900		900
Hay		1,750	1,750
Hemp	18	1,079	1,097
Honey		231	231
Hops		94	94
Infusorial earth		57	57
Leather	14		14
Linoleum	829		829
Liquors	132		132
Lumber	2,579	174,207	176,786
Malt	33		33
Manufactured goods:			
Iron and steel	110,648	521	111,169
Machinery	4,313	1,353	5,666
Railroad material	144	50	194
Tinplate	6,307		6,307
Textiles	2,808	224	3,032
Miscellaneous	7,723	288	8,011
Marble	35		35
Matches	43		43
Metals:			
Antimony		16	16
Copper	60	8,604	8,664
Iron	39		39
Lead		670	670
Scrap	1,295	349	1,644
Tin	26	700	726
Zinc		2,022	2,022
Other	33		33
Milk, powdered	10	465	475
Molasses	97		97
Musical instruments	10		10
Nuts		98	98
Oils:			
Coconut	5		5
Cottonseed	116		116
Crude		21,125	21,125
Gas oil, fuel oil		29,180	29,180
Gasoline, benzine, and naphtha		228,231	228,231
Kerosene		10,789	10,789
Lubricating and greases	2,699	10,433	13,132
Olive	12		12
Vegetable	255		255
Other	10		10
Ores:			
Copper	1,500		1,500
Magnesite		2,002	2,002
Other	48	45	93
Paint	665	36	701
Paper	6,075	4,964	11,039
Paper pulp	24	2,497	2,521
Peanuts	17		17
Phosphates	585	120	705

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Plaster	12	.....	12
Porcelain	81	223	304
Quicksilver	.....	1	1
Rags	62	564	626
Rice	822	377	1,199
Rope	204	458	662
Rosin	1,385	.....	1,385
Rubber:			
Manufactured	580	269	849
Scrap	.....	116	116
Salt	168	.....	168
Sand	11	.....	11
Seeds:			
Cotton	.....	20	20
Other	.....	1,113	1,113
Shells	462	87	549
Silk	.....	228	228
Skins and hides	.....	1,913	1,913
Slag	1,000	.....	1,000
Slate	360	.....	360
Soap	1,160	203	1,363
Soda	447	.....	447
Soda, ash	900	.....	900
Soda, bicarbonate	160	.....	160
Soda, caustic	878	.....	878
Starch	30	.....	30
Sugar	62	5,632	5,694
Sulphur	3,626	.....	3,626
Syrup	74	.....	74
Talc	.....	218	218
Tallow	.....	216	216
Tar	27	.....	27
Tea	10	97	107
Tobacco	1,113	155	1,268
Toys	17	.....	17
Turpentine	102	.....	102
Vegetables	30	10	40
Waste	58	1,094	1,152
Wax	25	209	234
Wheat	.....	2,970	2,970
Wine	.....	515	515
Wool	.....	3,262	3,262
Totals, November, 1928	234,851	638,489	873,340
Totals, November, 1927	169,663	605,019	774,682
Totals, November, 1926	220,765	621,001	841,766

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending December 8, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cambrai	U. S. Government	November 21	December 2...	.....	106
Utacarbon	Union Oil Co. of California	December 3...	December 4...	303	.....
U. S. A. T. Somme...	U. S. Government	December 5...	December 6.	.....	1,244
K. R. Kingsbury.....	Standard Oil Co	December 5...	December 5...	2,156	.....
Argun Maru	Osaka Shosen Kaisha	December 7...	December 7...	44	.....
Banan	John Pederson	December 7...	December 7.	.....	25
Chateau Thierry	U. S. Government	December 7...	December 8...	1,023	19

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season. Average temperature. Degrees F.
	Average.	Maximum.	Minimum.	
Cristobal (between docks 8 and 9)	1018	1020	1013	84.0
Balboa (dock 18)	1011	1021	1005	83.0

(NOTE—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective October 18, 1928:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.20
Brass, sheet, average	Lb.	.35
Bronze, Tobin, average	Lb.	.23
Gasoline, motor grade	Gal.	.14½
Metal, yellow	Lb.	.24
Oakum, Navy, spun	Lb.	15
Oakum, Navy, unspun	Lb.	.17
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder	Gal.	.28
Oil, burning, Colza	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135	Gal.	.43
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250	Gal.	.59
Oil, engine, gas, extra heavy, in drums, Gulftriton No. 2250	Gal.	.50
Oil, kerosene, in drums	Gal.	.11
Oil, marine engine	Gal.	.54
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc oxide, dry	Lb.	.11
Paint, zinc oxide, in oil	Lb.	.12
Grease, gear, chain and wire rope, lubricating	Lb.	.06
Grease, yellow, cup, No. 3	Lb.	.08
Grease, yellow, cup, No. 5	Lb.	.09
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.16
Waste, cotton, white	Lb.	.16

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., December 19, 1928. No. 20.

Holiday Greetings.

In the absence of Governor Burgess, it gives me great pleasure to extend to the personnel of The Panama Canal and the Panama Railroad Company, to the patrons and friends of the Canal, and to the people of the Republic of Panama, sincere good wishes for a Merry Christmas and a happy and prosperous New Year.

The loyalty, cooperation and friendship of our employees and our friends have contributed vitally to the great measure of success attained by the Canal during the present year.

J. L. SCHLEY,
Acting Governor, The Panama Canal,
Second Vice President, Panama Railroad Co.

Canal Traffic During First Fifteen Days of December.

During the first 15 days of December, 289 commercial vessels and 7 small launches transited the Canal. Tolls on the commercial vessels aggregated $1,222,383.61 and on the launches, $60.30, or a total tolls collection of $1,222,443.91.

The daily average of transits of commercial vessels was 19.26 and the daily average tolls collection, $81,492.24. The average amount of tolls paid by each of the commercial transits was $4,229.70, as compared with $4,215.59 for the first 15 days of November.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 11½ months of the current calendar year, with the daily averages of transits and tolls:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,370.57	17.48	71,721.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December (first 15 days)	289	1,222,383.61	19.26	81,492.24
Totals	6,044	25,155,316.63	17.27	71,872.33

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 15, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
M. F. Elliott [2]	8	17.05	9	6.24	9	14.01	9	15.20	American	Standard Shipping Co.	425.0	57.2	22.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,481	4,946
Orangemoor	9	6.30	9	7.55	9	15.22	9	18.05	British	Balfour Williamson Co	399.6	49.0	15.0	Tyne, England	Portland, Oreg.	Ballast		5,888	4,236
Aelybryn	9	7.00	9	10.34	9	17.15	9	18.28	British	Andrew Weir & Co.	385.0	52.0	21.5	Tampico, Mexico	Brisbane, Australia	Asphalt	5,225	5,466	3,985
Jugoslavija	9	10.35	9	10.55	9	18.02	9	21.05	Yugoslav	Baburizza & Co.	410.0	49.0	16.0	Valencia, Spain	Arica, Chile	Ballast		5,686	4,188
Lebore	9	5.30	9	11.42	9	19.33	9	21.05	American	Ore S. S. Corp	549.0	72.0	23.9	New York, N. Y.	Cruz Grande, Chile	Ballast		14,325	4,635
Skagerrak [1 2]	9	7.05	9	12.48	9	19.50	9	23.25	German	Atlantic Tank Line	411.0	55.0	20.0	Danzig	Los Angeles, Calif.	Ballast		6,412	4,176
Albisola	9	7.40	9	13.15	9	21.37	9	23.10	Italian	Corrado S. S. Co	382.0	50.0	16.0	Philadelphia, Pa.	Arica, Chile	Ballast		5,346	4,104
Fort Armstrong	9	13.07	9	13.40	9	21.55	10	1.00	American	Charles Nelson & Co.	324.0	46.2	20.6	Charleston, S. C.	Seattle, Wash.	General, pipe	3,760	3,984	2,628
Mary Ellen O'Neil [1 2]	9	11.28	9	14.05	9	22.11	9	23.28	American	Texas S. S. Co.	509.0	70.0	21.10	Baltimore, Md.	Los Angeles, Calif.	Ballast		12,425	8,838
Gen. G. W. Getty [3]			9	9.30	9	17.15			American	U. S. Army	89.0	22.0		Cristobal, C. Z.	Balboa, C. Z.	Towing barge			
Cutter [4]			9		9				American	U. S. Army				Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Izgled	9	19.55	9	20.10	10	9.33	10	11.49	Yugoslav	Atlant. Plov. Ivo Racic	378.0	53.3	21.0	Kastel, Sucurac	Chilean ports	Cement	5,315	5,236	3,987
El Salvador	9	6.37	10	6.10	10	12.55	10	23.15	American	Panama Mail S. S. Co.	360.0	51.6	22.0	New York, N. Y.	San Francisco, Cal.	General, coffee	1,162	5,710	4,023
San Jose	10	3.50	10	6.18	10	13.20	10	14.00	American	United Fruit Co	330.0	44.6	18.0	Port Limon, C. R.	San Francisco, Cal.	Bananas	589	3,670	2,353
Steel Traveler	9	17.55	10	6.10	10	14.00	10	15.00	American	Isthmian S. S. Lines	424.2	56.2	27.3	New York, N. Y.	Singapore, Str. Set.	General	8,622	7,698	5,509
British Peer [1]	9	18.25	10	7.25	10	14.54	10	16.20	British	British Tanker Co.	385.0	51.5	23.6	Falmouth, England	Talara, Peru	Ballast		5,238	3,330
Point Bonita	10	4.55	10	7.35	10	15.58	10	17.15	American	Gulf-Pacific Line	324.0	46.0	24.0	Houston, Texas	Seattle, Wash.	General	4,000	3,984	2,617
Geo. H. Jones [1]	10	2.15	10	7.30	10	15.18	10	16.20	American	Warner Quinlan Co	429.0	59.2	24.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,689	5,667
Warkworth	10	6.30	10	8.22	10	16.09	10	17.15	British	R. S. Dalgliesh & Co.	401.0	53.0	13.0	Barcelona, Spain	Vancouver, B. C.	Ballast		5,578	3,685
Penmar	10	7.42	10	9.40	10	17.35	10	19.00	American	Calmar S. S. Corp	385.3	51.2	25.0	Baltimore, Md.	Seattle, Wash.	Steel, general	7,184	6,224	4,465
Silksworth	10	7.48	10	9.43	10	17.39	10	19.00	British	Thomas Rice & Co.	415.0	53.0	25.0	Boca Grande, Fla.	Osaka, Japan	Cotton, phos'ates	6,529	6,530	4,623
Canadian Transporter	10	8.35	10	10.42	10	18.26	11	4.55	British	Can. Nat. Steamships	400.0	52.0	18.0	Montreal, Canada	Auckland, N. Z.	General	4,415	6,228	4,491
Robin Hood	10	13.40	10	13.50	10	21.40	10	22.55	American	Isthmian S. S. Lines	424.8	55.2	28.0	Baltimore, Md.	Tacoma, Wash.	General	8,901	7,473	5,533
St. Mihiel [5]	9	20.00	10	14.12	10	20.49			American	U. S. Army	436.0	58.0	23.9	New York, N. Y.	Balboa, C. Z.	Army supplies	540		
No. 31051 [6]			10		10	13.25			American	United Fruit Co.				Cristobal, C. Z.	Gatun, C. Z.	Ballast		15	15
Capt. Crowl [4]			10		10	10.58			American	U. S. Army				Cristobal, C. Z.	Gatun, C. Z.	Ballast			
Caroline Maersk [1 2]	10	13.55	10	17.30	11	8.52	11	10.17	Danish	Anglo-Saxon Pet. Co.	456.8	59.0	19.0	Fredericia, Den'k	Los Angeles, Calif.	Ballast		8,102	5,694
Radnor	10	19.27	10	19.45	11	11.35	11	12.45	American	Amer.-Pioneer Line, S.B.	434.3	57.7	25.8	Galveston, Texas	Manila, Philippines	General	7,603	7,982	5,956
Remuera	10	16.45	11	6.05	11	13.34	11	19.10	British	N. Z. Shipping Co	485.0	62.3	28.0	London, England	Wellington, N. Z.	General	5,023	11,911	8,945
Mamilius	10	13.00	11	6.15	11	14.23	11	15.30	British	Shaw, Savill & Albion.	477.5	63.1	27.6	London, England	Timaru, N. Z.	General	3,918	11,588	8,232
Sciota [3]			11	6.15	11	14.25			American	U. S. Navy	149.3	30.0		Cristobal, C. Z.	Balboa, C. Z.	Towing barge			
Zrinski	11	6.55	11	8.05	11	15.08	11	16.30	Yugoslav	Baburizza & Co.	399.0	53.0	13.0	Alexandria, Egypt	Antofagasta, Chile	Ballast		6,207	4,536
Idarwald	10	8.40	11	10.25	11	17.09	12	17.00	German	Hamburg-American Line	399.6	54.2	25.0	Hamburg, Germany	Valparaiso, Chile	General	4,885	6,561	4,510

[1] Tanker. [2] Motor ship. [3] Tug. [4] Launch. [5] U. S. Army transport. [6] Barge.

Orestes	10	16.03	11	12.15	11	19.00	13	00.17	Dutch	Royal Neth. S. S. Co.	347.2	48.2	18.0	Ams'dam, Holland	Corral, Chile	General	2,769	4,167	3,083
Markakis	11	10.50	11	13.35	11	20.20	11	21.35	Greek	M. Markou	375.6	48.7	15.0	Oral, Algeria	Arica, Chile	Ballast		5,371	3,936
Salvador	1	12.40	11	13.48	11	21.05	11	22.40	British	Pacific Steam Nav. Co	215.0	33.0	17.4	Cristobal, C. Z.	Champerico, Guat	General	1,129	1,270	735
Illyria [7]	11	10.15	11	14.05	11	21.10			American	Cornelius Crane	120.0	30.0	12.6	Boston, Mass.	Galapagos Island	Ballast		378	275
Tillie [4]			11		11	12.12			American	Amer. Banana Corp.				Cristobal, C. Z.	Gatun, C. Z.	Ballast		2	2
Derbyline [1]	11	18.25	11	20.05	12	9.25	12	22.16	American	Texas S. S. Co.	435.0	56.0	17.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,446	5,144
Cerigo	3	19.50	12	6.05	12	14.30	12	15.40	German	Hamburg-AmericanLine	227.0	34.4	14.8	Cristobal, C. Z.	Buenaventura, Col.	General	752	1,572	1,011
Oklahoma	11	6.45	12	6.14	12	14.05	12	15.30	French	French Line	400.0	51.6	21.6	Havre, France	Talcahuano, Chile	General	3,157	6,014	4,477
F. J. Luckenbach	12	1.25	12	7.25	12	15.08	12	16.10	American	Luckenbach Line	446.0	56.0	22.0	Boston, Mass.	Tacoma, Wash.	General	3,777	8,508	6,179
Northumberland	12	4.25	12	7.30	12	15.27	13	8.05	British	Federal Steam Nav.Co	530.0	63.0	29.0	London, England	Wellington, N. Z.	General	9,374	13,268	9,124
Alaskan	12	5.00	12	8.07	12	15.39	12	16.45	American	Amer.-Hawaiian Line	415.0	53.0	19.5	Boston, Mass.	Tacoma, Wash.	General	2,424	7,380	5,339
Teucer	12	6.30	12	8.25	12	16.45	12	18.40	British	Alfred Holt & Co	486.0	58.0	29.8	Baltimore, Md.	Dalny, China	General	8,872	9,366	6,474
Langleeford	12	6.45	12	9.45	12	17.13	12	18.40	British	McDomsley S. S. Co	370.0	56.0	14.0	Porto Ferrajo, Italy	Vancouver, B. C.	Ballast		5,195	3,515
Lubrafol [1] [2]	10	6.50	12	12.06	12	19.16	12	23.03	Belgian	Soc. Anon. de Com	440.0	57.0	25.8	Antwerp, Belgium	Los Angeles, Calif.	Creosote	8,100	7,615	4,976
Knute Nelson [2]	11	24.00	12	13.16	12	19.48	14	3.48	Norwegian	Fred Olsen & Co	436.0	56.0	23.10	Oslo, Norway	Vancouver, B. C.	General	6,001	8,016	5,854
Nitro	12	7.05	12	14.00	12	21.14	12	23.00	Italian	Soc. Annon Co	406.0	48.8	14.8	Genoa, Italy	Valparaiso, Chile	General	167	5,742	4,180
Munaires	12	18.43	12	18.58	13	9.19	13	10.46	American	Munson S. S. Line	370.0	53.0	22.0	Baltimore, Md.	Tacoma, Wash.	General	5,265	5,577	4,225
Sawokla [2]	10	15.48	13	6.15	13	12.31	16	21.00	American	Roosevelt S.S. Co., S. B.	402.0	54.0	23.6	New York, N. Y.	Fremantle, Aust'lia	General	2,633	7,097	5,317
Eldonpark	13	4.30	13	8.20	13	15.06	13	16.25	British	J. & J. Denholm	403.0	53.0	16.0	Genoa, Italy	Arica, Chile	Ballast		5,803	4,125
Neptunian [2]	13	8.12	13	8.30	13	15.50	13	20.00	British	W. A. Souter & Co	400.0	55.0	23.6	New Orleans, La.	Yokohama, Japan	([8])	7,376	7,257	5,458
Santa Teresa	12	22.45	13	9.15	13	16.00	13	17.15	American	Grace Line	360.2	51.6	24.8	New York, N. Y.	Talcahuano, Chile	General	2,449	5,726	4,086
New Jersey [2]	13	10.30	13	10.40	13	17.21	13	18.36	American	Texas S. S. Co	416.8	56.0	23.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,130	5,240
Trewidden	13	6.25	13	11.55	13	18.52	13	23.27	British	Hain S. S. Co	400.0	52.0	16.2	Montreal, Canada	Geelong, Australia	Motors, general	2,100	5,857	4,350
York City	13	14.10	13	14.20	13	21.00	14	6.19	British	Reardon Smith Line	411.0	55.0	16.0	London, England	Vancouver, B. C.	Ballast		7,038	5,166
Suscolanco	13	14.28	13	14.55	13	22.15	13	23.27	American	Transmarine Lines	324.0	46.0	21.6	New York, N. Y.	San Francisco, Cal.	General	4,008	4,984	2,612
La Paz [2]	12	18.55	14	6.07	14	13.05	14	20.15	British	Pacific Steam Nav. Co.	406.0	54.0	17.7	London, England	Valparaiso, Chile	General	3,222	7,216	4,912
Alvarado	12	22.45	14	6.05	14	13.30	14	14.55	British	Pacific Steam Nav. Co.	303.0	43.0	17.6	New York, N. Y.	Callao, Peru	General	912½	2,844	1,748
Satotawan	13	23.25	14	7.20	14	14.01	14	14.55	American	Redwood Line	387.0	52.0	20.0	Mobile, Ala.	San Francisco, Cal.	Sulphur, general.	5,709	5,708	4,138
Virginia	14	6.35	14	7.40	14	16.00	15	00.50	American	Panama-Pacific Line	586.4	80.3	27.0	New York, N. Y.	San Francisco, Cal.	General	3,824		18,160
President Hayes	14	6.10	14	7.55	14	14.56	14	21.52	American	Dollar Line	502.0	62.2	28.10	New York, N. Y.	San Francisco, Cal.	General	3,450	12,023	8,443
Chetopa	14	00.20	14	8.50	14	16.23	14	18.35	American	Charles Nelson & Co	324.0	46.0	18.0	Baltimore, Md.	Seattle, Wash.	General	2,580	3,984	2,628
Volumnia	14	8.30	14	8.45	14	17.08	14	18.35	British	Can.-Amer. Ship. Co	423.5	56.0	10.0	Norfolk, Va.	Vancouver, B. C.	Ballast		6,229	4,524
Ucayali	13	13.40	14	12.45	14	19.35	14	21.15	Peruvian	Peruvian Line	374.7	46.3	18.0	Covenas, Colombia	Callao, Peru	Cattle, general	412	4,466	2,405
Ludwigshafen	13	17.15	14	13.10	14	20.02	15	17.25	German	Roland Line	393.0	54.0	21.9	Bremen, Germany	San Antonio, Chile	General	2,944	6,600	4,622
Stella	10	17.35	14	15.00	15	10.11	16	1.48	Norwegian	Panama Mail S. S. Co.	191.0	32.0	13.10	Cristobal, C. Z.	Puntarenas, C. R.	General	840	985	606
Maasburg	14	14.00	14	15.15	14	22.42	14	23.55	Danish	Halcyon S. S. Co	444.0	59.0	18.0	S. Shields, England	Vancouver, B. C.	Ballast			
Oilpioneer [1] [2]	14	15.05	14	20.30	15	9.20	17	21.00	British	British Oil Shipping Co.	410.0	53.5	22.6	Newcastle, England	Los Angeles, Calif.	Ballast			
Nyanza	14	11.15	15	6.23	15	13.42	15	16.24	British	Wessel, Duval & Co	403.0	52.0	17.5	New York, N. Y.	San Antonio, Chile	General	1,000		
Nikola Mihanovic	14	16.50	15	6.15	15	14.42	15	19.00	Yugoslav	Baburizza & Co	400.6	52.3	15.0	Alexandria, Egypt	Antofagasta, Chile	Ballast		5,826	3,969
Solana [1]	14	17.50	15	7.05	15	15.20	15	16.24	American	Tidewater Oil Co	419.5	56.5	21.0	New York, N. Y.	San Francisco, Cal.	Ballast		7,060	5,025
Elsa [1] [2]	14	19.20	15	7.12	15	15.52	15	17.25	Norwegian	Harry Berthem	389.0	52.0	18.0	Hamburg,Germany	Los Angeles, Calif.	Ballast			
Santa Cecilia	14	19.5	15	8.25	15	16.26	15	17.25	American	Argonaut S. S. Co	404.6	53.9	28.2	New York, N. Y.	Los Angeles, Calif.	Steel, general	8,188	6,745	4,562
Java Arrow [1]	14	22.00	15	9.15	15	17.00	15	18.18	American	Standard Oil Co	468.6	62.6	20.1	New York, N. Y.	Los Angeles, Calif.	Ballast		10,084	7,388
Epidauro	15	5.45	15	10.40	15	18.00	15	19.50	Yugoslav	Baburizza & Co	360.0	48.0	12.0	Santa Cruz, C. I.	Chile	Ballast		4,617	3,412
Sugillenco	15	6.15	15	10.40	15	18.10	15	23.44	American	Transmarine Lines	324.0	46.2	20.0	Newark, N. J.	San Francisco, Cal.	General	2,650	3,984	2,612
Tirso	13	22.05	15	11.30	15	18.48	15	19.50	Italian	Nav. Gen. Italiana	400.0	52.5	19.8	Genoa, Italy	Valparaiso, Chile	General	1,868	5,876	4,188
Valacia	15	7.00	15	12.50	15	19.40	15	21.00	British	Cunard Line	460.0	57.0	20.0	Liverpool, England	Fremantle, Aust'lia	General	3,280	8,460	6,425

[1] Tanker.

[7] Yacht.

[8] Steel, scrap, and cotton.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Tongking [9]	15	9.35	15	13.20	15	21.05	16	14.30	Danish	East Asiatic S. S. Co.	410.0	55.0	17.2	Newcastle, Eng.	Vancouver, B. C.	Coke, general	3,070	7,013	5,317
McLane [10]	15	13.00	15	14.00	15	20.30			American	U. S. Navy	110.0	23.0	9.6	New London, Conn.	San Francisco, Cal.	Ballast			
Alert [10]	15	13.00	15	14.00	15	20.30			American	U. S. Navy	110.0	23.0	9.6	New London, Conn.	San Francisco, Cal.	Ballast			
Bonham [10]	15	13.00	15	14.00	15	20.30			American	U. S. Navy	110.0	23.0	9.6	New London, Conn.	San Francisco, Cal.	Ballast			
Ewing [10]	15	13.00	15	14.00	15	20.28			American	U. S. Navy	110.0	23.0	9.6	New London, Conn.	San Francisco, Cal.	Ballast			
Montgomery [10]	15	13.00	15	14.00	15	20.28			American	U. S. Navy	110.0	23.0	9.6	New London, Conn.	San Francisco, Cal.	Ballast			
Morris [10]	15	7.20	15	14.00	15	20.28			American	U. S. Navy	110.0	23.0	9.6	New London, Conn.	San Francisco, Cal.	Ballast			
Plum Branch	15	11.57	15	14.40	15	22.10	16	1.05	British	F. & W. Ritson	398.5	55.8	21.0	Liverpool, England	Corral, Chile	General	4,700	5,761	3,881
Motor Sailor			15		15	9.04			American	U. S. Navy				Cristobal, C. Z.	Gatun, C. Z.	Ballast			

[9] Motor ship. [10] Coast Guard cutter.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Marore	8	00.30	9	4.53	9	15.08	9	15.08	American	Ore S. S. Corp.	550.3	72.2	34.3	Cruz Grande, Chile	Baltimore, Md.	Iron ore	20,000	15,551	4,297
Amberton	9	00.05	9	7.33	9	17.40	9	17.40	British	R. Champan & Co	409.6	54.0	24.6	Vancouver, B. C.	Falmouth, England	Wheat	7,972	5,756	4,139
Effie M. Morrissey [9]	7	10.30	9	7.23	9	18.40	10	8.25	British	Robert A. Bartlett	93.6	23.8	10.6	Prince Rupert, B.C.	New York, N. Y.	Ballast		120	88
Ucayali	9	6.30	9	8.05	9	18.42	11	7.00	Peruvian	Peruvian Line	374.7	46.3	21.0	Callao, Peru	Covenas, Colombia	General	1,986	4,466	2,405
Lubrico [1]	9	9.05	9	9.45	9	18.50	9	22.45	American	Standard Oil Co. of Cal.	425.0	57.2	27.5	Los Angeles, Calif.	Bayonne, N. J.	Gasoline	9,434	7,227	4,827
Castor [2] [9]	9	9.30	9	12.46	9	21.20	9	21.20	Swedish	F. Malmros	466.0	61.6	28.1	San Francisco, Cal.	Land's End, Eng. [12]	Gasoline	11,871	8,960	6,295
Uganda	9	15.50	9	16.44	10	11.58	10	11.58	British	Maclay & McIntyre	402.5	52.5	25.0	Iquique, Chile	Savannah, Ga.	Nitrates	7,725	5,593	4,069
Marsodak	9	16.08	10	6.40	10	14.38	10	14.38	American	Nelson S. S. Co	324.0	46.2	23.0	Seattle, Wash	Baltimore, Md.	[13]	3,660	3,984	2,628
Fella [9]	10	3.40	10	7.08	10	15.40	10	21.15	Italian	Nav. Libera-Triestina	436.6	55.4	26.7	Vancouver, B. C.	Trieste, Italy	Wheat, general	9,150	7,784	6,045
Essequibo	10	4.30	10	8.21	10	15.00	10	21.35	British	Pacific Steam Nav. Co	450.3	57.8	23.8	Talcahuano, Chile	New York, N. Y.	Copper, general	2,943	9,158	6,176
Sciota [11]			10	8.11	10	18.50			American	U. S. Navy	155.0	30.0		Balboa, C. Z.	Cristobal, C. Z.	[14]			
Stella	10	5.00	10	8.28	10	17.35	15	15.53	Norwegian	Panama Mail S. S. Co.	195.1	32.0	11.2	San Jose, Guate.	Cristobal, C. Z.	Coffee	101	985	605
August Leonhardt	10	5.30	10	8.35	10	17.30	10	23.10	German	Cia. Maritima Colom.	378.8	46.1	11.0	Buenaventura, Col.	New York, N. Y.	[15]	545	3,724	2,817
Cities Service Empire [1]	10	8.15	10	9.19	10	18.05	10	18.05	American	Cities Service Corp.	464.7	60.2	26.0	Los Angeles, Calif.	Boston, Mass.	Gasoline	9,815	8,561	5,998
Gaelicstar	10	6.35	10	11.17	10	18.45	11	00.40	British	Blue Star Line	389.8	53.2	23.0	San Francisco, Cal.	Hamburg, Germany	General	3,268	6,014	4,492
Jefferson Myers	10	16.20	10	17.58	11	11.25	11	11.25	American	States S. S. Co.	440.0	56.0	28.0	Portland, Oreg.	Baltimore, Md.	[16]	8,893	8,300	6,020
Ecuador	10	10.30	11	6.25	11	13.10	12	1.12	American	Panama Mail S. S. Co.	380.6	48.7	23.0	San Francisco, Cal.	New York, N. Y.	General	2,218	5,926	4,178
Sun [1] [9]	10	18.30	11	6.30	11	16.38	11	16.38	American	Sun Oil Co	480.6	66.0	29.0	Los Angeles, Calif.	Chester, Pa.	Gasoline	13,519	9,620	6,424
Moerdijk	10	19.05	11	7.14	11	18.15	11	23.30	Dutch	Holland-American Line	473.0	61.0	25.9	Vancouver, B. C.	Rotterdam, Holland	General	9,318	9,165	7,056
Walter A. Luckenbach	10	22.30	11	7.57	11	18.15	11	18.15	American	Luckenbach Line	446.5	56.1	27.0	Portland, Oreg.	Boston, Mass.	General	6,832	8,785	6,567
Pennsylvanian	11	7.04	11	10.25	11	18.50	11	18.50	American	Amer.-Hawaiian Line	407.7	53.7	27.0	Portland, Oreg.	Boston Mass.	General	7,538	7,107	5,041
Santa Cecelia	11	7.45	11	10.47	11	19.30	13	00.10	American	Grace Line	408.0	55.2	24.0	Valparaiso, Chile	New York, N. Y.	[17]	5,715	6,672	4,905

[1] Tanker. [11] Tug. [12] For orders. [13] Lumber, copper, and general. [14] Towing barge. [15] Coffee, hides, and general. [16] Lumber, grain, and copper. [17] Copper, nitrates, coffee, and cocoa.

Benrecch	11	10.30	11	11.15	11	20.30	11	21.25	British	Ben Line	420.1	54.0	24.6	Vancouver, B. C.	Antwerp, Belgium	Grain, lumber	8,200	6,425	4,068
Manatawny [1]	11	13.00	11	14.01	11	21.30	11	21.50	American	B. L. Shipping Co	390.0	54.2	27.8	Los Angeles, Calif.	New York, N. Y.	Gas oil	6,253	6,203	4,339
Rimac	11	15.30	11	16.04	12	9.20	13	20.12	Peruvian	Peruvian Line	435.7	53.2	25.9	Callao, Peru	Liverpool, England	Sugar, cotton	6,827	7,644	5,415
Chilore	12	1.30	12	6.03	12	16.25	12	16.25	American	Ore S. S. Corp	549.6	72.2	34.0	Cruz Grande, Chile	New York, N. Y.	Iron ore	20,000	14,538	9,348
Independence	11	20.15	12	6.35	12	13.55	12	14.58	American	Tampa Interocean Co	440.0	56.0	27.2	Manila, Philippines	New York, N. Y.	Sugar	8,737	8,290	6,063
Willhilo	12	6.00	12	7.18	12	17.35	12	17.35	American	Williams S. S. Line	434.3	57.7	24.9	Everett, Wash.	New York, N. Y.	Lumber, general	7,993	7,983	5,859
Justin	12	5.45	12	8.24	12	18.18	12	19.30	German	North German Lloyd	449.1	58.2	25.2	Vancouver, B. C.	Hamburg,Germany	Grain, general	7,269	7,933	5,799
Kirnwood	12	6.30	12	8.46	12	18.40	12	18.40	British	Can.-American S. S. Co.	366.5	52.5	20.6	Vancouver, B. C.	Genoa, Italy	Wheat, lumber	5,670	4,842	3,488
Manhattan Island	12	8.40	12	9.31	12	18.58	12	18.58	American	Redwood Line	386.6	52.2	24.3	San Francisco, Cal.	Mobile, Ala	Lumber, general	5,937	5,696	4,125
Manizales	12	8.50	12	9.54	12	19.40	.....	.....	German	Roland Line	216.0	33.0	11.6	Guayaquil,Ecuador	Cristobal, C. Z.	General	339	1,132	741
O-6 [18]	.....	.....	13	6.20	13	15.25	.....	.....	American	U. S. Navy	175.0	16.4	.....	Balboa, C. Z.	Cristobal, C. Z.	.....	.....	.....	.....
Innerton	12	19.40	13	6.45	13	13.45	13	13.45	British	R. Chapman & Son	399.4	52.3	24.2	Vancouver, B. C.	Genoa, Italy	Wheat	7,215	5,740	4,087
Memas	12	23.00	13	7.08	13	15.15	13	15.15	Greek	Vergottis, Ltd	375.0	50.0	23.0	Tocopilla, Chile	Azores [12]	Nitrates	6,750	4,803	3,474
Albert Vogler	13	2.20	13	7.56	13	16.40	14	00.15	German	Hamburg-AmericanLine	423.2	54.1	22.3	Valparaiso, Chile	Hamburg,Germany	Nitrates, ore	6,391	7,173	5,514
Poljana	13	6.30	13	8.57	13	18.30	13	20.30	Norwegian	Winge & Co	360.7	52.2	23.0	San Antonio, Chile	English Channel [12]	Nitrates, general	6,280	5,451	3,820
George Washington [9]	13	9.10	13	9.44	13	19.30	13	19.30	Norwegian	Fred Olsen & Co	425.5	55.0	28.9	Vancouver, B. C.	Oslo, Norway	Grain, general	9,057	7,505	5,627
St. Mihiel [19]	10	20.49	13	10.20	13	18.45	14	11.05	American	U. S. Army	448.0	58.0	25.4	Balboa, C. Z.	New York, N. Y.	Household goods	68	.....	.....
Aleksander I	13	12.30	13	13.14	13	20.30	13	20.30	Yugoslav	Baburizza & Co	423.5	56.0	25.6	Antofagasta, Chile	Azores [12]	Nitrates	9,301	6,561	4,701
Limon	13	15.00	13	15.40	13	21.30	15	3.25	American	United Fruit Co	330.6	44.5	19.5	San Francisco, Cal.	Port Limon, C. R.	General	793	3,675	2,229
King Stephen [9]	13	23.50	14	6.39	14	13.40	14	15.55	British	King Line, Ltd	400.0	54.5	23.3	Vancouver, B. C.	Capetown, So. Af.	Lumber, general	6,144	6,329	4,345
Caldas [9]	13	18.30	14	6.40	14	16.45	.....	.....	Colombian	National Navigation Co.	116.0	21.1	9.6	Buenaventura, Col.	Cristobal, C. Z.	General	229	211	124
Ariaga Mendi	14	8.15	14	9.00	14	16.55	14	18.15	Spanish	Sota & Aznar	393.5	52.9	24.0	Tocopilla, Chile	Azores [12]	Nitrates	8,080	5,977	4,396
Illinois [1]	14	9.42	14	10.29	14	18.50	14	18.50	American	The Texas Co	416.8	56.1	25.8	Los Angeles, Calif.	New York, N. Y.	Gasoline	7,984	7,150	5,320
Dean Emery [1]	14	9.50	14	10.47	14	19.00	14	19.20	American	Pan.-Amer.Pet.& Tr.Co.	429.3	59.2	26.9	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,300	7,709	5,517
Targis	14	1.50	14	12.28	14	20.20	15	14.40	German	North German Lloyd	429.8	55.2	27.0	San Antonio, Chile	Hamburg,Germany	General	8,255	7,533	5,413
Vermont	14	11.45	14	12.28	14	21.30	15	21.10	French	French Line	413.0	52.5	25.0	Talcahuano, Chile	Le Havre, France	General	7,503	5,822	4,122
Columbian	14	13.07	14	13.45	14	22.05	14	22.05	American	Amer.-Hawaiian Line	404.6	53.9	27.9	San Francisco, Cal.	Boston, Mass.	Lumber, general	5,289	6,760	4,450
Demeterton	14	15.20	14	16.12	15	11.25	15	11.25	British	R. Chapman & Son	39 .2	54.0	24.6	Vancouver, B. C.	London, England	Wheat	7,950	5,707	4,212
Sidney M. Hauptman	14	14.30	14	16.33	15	12.55	15	12.55	American	McCormick S. S. Co	401.4	53.2	27.6	Portland, Oreg.	Baltimore, Md.	Lumber, general	8,278	7,082	5,167
Steelore	15	1.40	15	5.45	15	16.45	15	16.45	American	Ore S. S. Corp	550.3	72.2	33.6	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,000	15,551	4,297
Phoenicia [9]	14	20.20	15	6.35	15	14.10	15	19.20	German	Hamburg-AmericanLine	374.2	53.6	19.7	Los Angeles, Calif.	Hamburg,Germany	General	3,152	5,425	3,508
Bohemian Club [1]	15	5.00	15	6.59	15	18.48	15	18.48	American	Atlantic Refining Co	425.0	57.2	27.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,191	7,204	4,769
Oropesa	15	7.10	15	8.44	15	18.45	16	1.15	British	Pacific Steam Nav. Co.	530.0	66.3	29.0	Talcahuano, Chile	Liverpool, England	General	10,241	14,827	10,640
Preradovic	14	20.20	15	9.05	15	19.25	15	19.25	Yugoslav	Yugoslav-Amer. Nav.	420.5	54.5	26.3	Iquique, Chile	Azores [12]	Nitrates	8,200	6,362	4,722
Yaye Maru	15	00.30	15	9.43	15	20.00	15	21.35	Japanese	Kokusai Kisen Kaisha	425.0	53.8	27.4	Prince Rupert,B.C.	United Kingdom	Wheat	8,955	6,798	5,174
Queen Eleanor	15	4.50	15	9.58	15	21.00	15	22.35	British	Thomas Dunlop & Sons	400.0	52.8	24.6	Tocopilla, Chile	Savannah, Ga.	Nitrates	7,750½	5,898	4,058
Orinoco	15	7.00	15	11.20	15	21.10	15	21.10	American	Quaker Line	376.4	52.3	23.6	Aberdeen, Wash.	New York, N. Y.	Lumber	6,050	5,455	3,902
William McAllum	15	11.30	15	12.30	15	22.25	15	23.55	Greek	Rethymnis & Kuluk'dis	400.0	51.0	26.0	Iquique, Chile	Azores [12]	Nitrates	7,923	6,141	4,591
A. L. Kent	15	11.50	15	12.51	15	23.20	15	23.20	American	Isthmian S. S. Lines	394.0	55.1	26.8	Wilmington, Calif.	Boston, Mass.	General	7,687	7,047	5,132
Thode Fagelund	15	15.45	15	16.44	16	12.03	16	12.03	Norwegian	Wilhelmsen Line	395.0	53.9	25.0	Iquique, Chile	Wilmington, Del.	Nitrates	7,440	.....	.....
Doris [20]	14	13.30	15	7.05	15	.....	.....	.....	Panaman	United Fruit Co	.....	.....	.....	Balboa, C. Z.	Gatun Lake, C. Z.	([22])	.....	.....	.....
No. 31059 [21]	14	13.30	15	7.05	15	.....	.....	.....	Panaman	United Fruit Co	.....	.....	.....	Balboa, C. Z.	Gatun Lake, C. Z.	([23])	.....	.....	.....

[1] Tanker [18] Submarine. [19] U. S. Army transport. [20] Launch [21] Barge. [22] Towing barge. [23] Towed by *Doris*.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
December 9...	Calamares	United Fruit Co	Port Limon, Costa Rica.	December 9...	Calamares	United Fruit Co	New York via Habana.
December 10...	Perou	French Line	St. Nazaire and wayports.	December 10...	Heredia	United Fruit Co	New Orleans and wayports.
December 10...	Pastores	United Fruit Co	New York and Habana.	December 10...	Ancon	Panama R. R. S. S. Line	New York via Haiti.
December 10...	Wawa	Standard Fruit & S. S. Co	Puerto Cabezas.	December 11...	Wawa	Standard Fruit & S. S. Co	La Ceiba.
December 12...	Granada	Standard Fruit & S. S. Co	New Orleans, La.	December 12...	Perou	French Line	Havre via wayports.
December 12...	Sixaola	United Fruit Co	New York via Kingston.	December 12...	Pastores	United Fruit Co	Port Limon, Costa Rica.
December 13...	Suriname	United Fruit Co	New Orleans, La.	December 12...	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
December 13...	Antillian	Leyland Line	Liverpool via wayports.	December 13...	Sixaola	United Fruit Co	New York via wayports.
December 13...	Macabi	United Fruit Co	Boston, Mass.	December 13...	Suriname	United Fruit Co	Puerto Colombia.
December 14...	Coppename	United Fruit Co	Bocas del Toro, R. P.	December 13...	Anachucuna [24]	United Fruit Co	Colon, R. P.
December 13...	Anachucuna [24]	United Fruit Co	Colon, R. P.	December 14.	El Panquiaco [25]	Panaman Government	Colon, R. P.
December 14...	Nordhav	Anglo-Saxon Petroleum Co	Curacao, D. W. I.	December 14.	Granada	Standard Fruit & S. S. Co	New Orleans and wayports.
December 14...	El Panquiaco [25]	Panaman Government	Colon, R. P.	December 14.	Coppename	United Fruit Co	New Orleans, La.
December 14...	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	December 15.	Macabi	United Fruit Co	Puerto Colombia.
December 14...	Teutonia	Hamburg-American Line	Tampico via wayports.	December 15.	Teutonia	Hamburg-American Line	Hamburg via wayports.
December 15...	Manaqui	United Fruit Co	New York via wayports.	December 15.	Wanks	Standard Fruit & S. S. Co	Perme, R. P.
December 15...	Cartago	United Fruit Co	New Orleans via Habana.	December 15.	Anachucuna [24]	United Fruit Co	Colon, R. P.
December 15...	Impco [26]	Colon Import & Export Co	Colon, R. P.				
December 15...	Anachucuna [24]	United Fruit Co	Colon, R. P.				

[24] Motor boat. [25] Transport. [26] Motor schooner.

PORT OF BALBOA.

December 9...	Cricamola [27]	Chiriqui Land Co	Puerto Armuelles, R. P.	December 12..	Grant [28]	U. S. Army	San Francisco, Calif.
December 11...	Grant [28]	U. S. Army	San Francisco, Calif.	December 12..	Dos Hermanos [29]	A. Valdez	Bayano River, R. P.
December 12...	Mojave	General Petroleum Co	Los Angeles, Calif.	December 13.	Mojave	General Petroleum Co	Los Angeles, Calif.
December 12...	Dos Hermanos [29]	A. Valdez	Bayano River, R. P.	December 14..	A. B. de Obarrio [29]	Pacific Fruit Co	Bayano River, R. P.
December 14...	A. B. de Obarrio [29]	Pacific Fruit Co	Bayano River, R. P.	December 14..	El Colon [29]	H. Elliot	El Real, R. P.
December 14...	El Colon [29]	H. Elliot	El Real, R. P.	December 14.	Nina [29]	H. Elliot	El Real, R. P.
December 14...	Nina [29]	H. Elliot	El Real, R. P.	December 14..	Dos Hermanos [29]	A. Valdez	Bayano River, R. P.
December 14...	Dos Hermans [29]	A. Valdez	Bayano River, R. P.				
December 15...	Nora	Grace Line	Los Angeles, Calif.				

[27] Motor ship. [28] U. S. Army transport. [29] Motor schooner. * Other than ships passing through the Canal.

New Turbo-Electric Liner "Virginia" Transits Canal.

The turbo-electric liner *Virginia*, of the Panama Pacific Line, transited the Canal December 14, 1928, en route from New York to San Francisco, via Habana, San Diego, and Los Angeles, on her maiden voyage in the United States intercoastal service. The *Virginia* is the second of the three new vessels which the Panama Pacific Line announced some time ago they would place in the intercoastal service. The first of these three vessels, the *California*, transited the Canal on her initial voyage last February, and the third liner is now under construction at Newport News and will be placed in service in late 1929.

The *Virginia*, which is similar to the *California*, although slightly larger, is said to be the largest commercial vessel to have been built in the United States. She is 586.4 feet long, 80.3 feet beam, and of 20,733 gross tons. She carried 584 passengers and 3,824 tons of general cargo on her initial trip through the Canal. Tolls were $15,210.

Cargo Through Canal During November, 1928.

On pages 282 and 283 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in November 1928. This cargo, segregated according to direction, as compared with November, 1927, and the differences, are shown in the following tabulation:

	November, 1928.	November, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Atlantic to Pacific	780,752	597,434	+183,318
Pacific to Atlantic	1,720,878	1,891,448	−170,570
Totals	2,501,630	2,488,882	+12,748

It will be noted from the above that the Atlantic to Pacific tonnage increased 183,318 tons over that in November, 1927, while that from the Pacific to the Atlantic showed a decrease of 170,570 tons a net increase of cargo tonnage in both directions over November, 1927, of 12,748 tons. A feature of the past month's traffic was the amount of cargo in transit from the east coast of the United States to Asia which totaled 236,012 tons, the largest amount of cargo shipped in this trade since May, 1922.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Over 69 per cent of the cargo moving from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 24.5 per cent in Europe. Cargo originating in the United States was 151,692 tons, or 38.8 per cent, greater than the amount coming from that area in November, 1927. Tonnage from Europe showed an actual increase of 40,649 tons over November last year, although the percentage of the total in November of both years was about the same. The actual increase amounted to 27 per cent over the amount shipped in November last year.

Destination.—Over 39 per cent of the Pacific-bound cargo was destined to the United States; 30.6 per cent to Asia (including the Philippines); 15.2 per cent to South America; and 9.9 per cent to Australasia. Tonnage to all of these areas, with the exception of Australasia, showed actual as well as relative increases over the corresponding month a year ago. The actual increase to the United States

amounted to 95,638 tons, or 45.1 per cent; that to Asia an increase of 107,838 tons, or 82.8 per cent; and that to South America 31,979 tons, or 36.7 per cent. Cargo to Australasia showed a relative as well as an actual decrease of 36,735 tons, or 32.1 per cent under that in November, 1927.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 55.4 per cent originated on the west coast of the United States; 24.6 per cent in South America; 15.3 per cent in Canada; 2.7 per cent in Australasia; and 1.9 per cent in Asia. Cargo from the United States and South America showed decreases in actual tonnage under November, 1927, of 196,346 tons, or 17 per cent, and 81,237 tons, or 16.0 per cent, respectively. Cargo tonnage from Canada increased 104,793 tons, or 65.6 per cent, and at the same time showing a heavy increase in percentage of the total cargo. Cargo from Asia and Australasia also showed small actual and relative increases.

Destination.—Segregated according to destination, 50.3 per cent of the cargo in this direction went to the United States, and 43.9 per cent to Europe. Tonnage to the United States showed a small increase of less than 5,000 tons, as well as a relative increase, over November, 1927, while that to Europe decreased 78,797 tons, or 9.4 per cent, although the percentage of the total cargo in the two months was approximately the same.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 86 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 14 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific-bound commodities which aggregated more than 10,000 tons for November, 1928, or November, 1927, are listed in the following tabulation, together with the totals for the first 11 months of the calendar years 1928 and 1927:

Commodity.	November, 1928.	November, 1927.	First 11 months in—	
			1928.	1927.
	Long tons.	*Long tons.*	*Long tons.*	*Long tons.*
Automobiles	21,500	10,358	166,451	108,961
Cement	25,060	19,129	258,962	224,548
Coal and coke	30,825	12,045	282,890	193,476
Cotton	58,635	37,302	251,539	353,146
Manufactured goods:				
Iron and steel	187,726	123,395	1,966,590	1,815,423
Machinery	15,022	17,938	164,997	192,245
Railroad material	15,346	13,778	216,893	146,329
Tinplate	21,059	4,560	172,964	180,996
Textiles	12,052	13,999	112,443	99,032
Miscellaneous	16,019	23,822	137,470	80,504
Mineral oils	62,136	53,183	677,683	602,085
Paper	13,707	19,686	176,531	155,783
Phosphates	13,946	7,137	224,882	150,468
Salt	11,340	2,255	46,753	34,128
Silversand	10,250	3,080	40,051	43,784
Tobacco	22,131	6,109	123,882	67,207

The above 16 commodity groups comprise almost 69 per cent of the cargo moving from the Atlantic to the Pacific during November, 1928. It will be noted that 12 of these items showed increases while in the other four slight decreases were noted. Comparing the same items for the first 11 months of the calendar years 1928 and 1927, 12 of the items for 1928 show increases over 1927.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of November, 1928. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below together with the totals for the first 11 months of the calendar years 1928 and 1927:

Commodity.	November, 1928.	November, 1927.	First 11 months in—	
			1928.	1927.
	Long tons.	*Long tons.*	*Long tons.*	*Long tons.*
Barley	22,352	18,588	238,469	302,294
Beans	13,437	13,645	139,436	73,606
Canned goods (fish, fruit, vegetables, etc.)	105,665	98,870	779,418	642,073
Cold storage (food products) [1]	22,300	21,590	282,708	238,192
Flour	11,621	9,871	116,438	78,457
Fruit, dried	45,104	60,122	272,613	202,615
Fruit, fresh	28,094	12,442	110,169	83,419
Lumber	251,668	224,572	3,304,068	3,162,665
Metals, various	60,643	45,948	601,556	520,856
Nitrates	213,033	228,659	2,133,627	1,724,464
Oils, mineral	436,749	484,147	4,382,784	6,442,074
Ores (principally iron)	95,134	148,439	1,463,671	1,553,607
Rice	9,097	14,962	72,309	60,354
Sugar	32,847	40,067	525,792	513,264
Wheat	256,583	351,224	2,519,865	1,641,097

[1] Does not include fresh fruit.

The above 15 commodity groups comprise 94 per cent of the cargo moving from the Pacific to the Atlantic during November, 1928. Seven of the items show increases and 8 decreases. A comparison of the first 11 months, however, show substantial increases in all items with the exception of barley, mineral oils, and ores.

(**Continued on next page.**)

Heavy Day's Traffic.

Thirty-one commercial vessels, having an aggregate net tonnage of 138,124, transited the Canal on December 8, 1928. Combined tolls on the day's traffic totaled $120,507.28, and cargo carried amounted to 107,786 tons. This day's traffic falls short by two transits of equaling the record traffic for one day established on October 1, 1927. Of the 31 transits on December 8, 22 were passed from the Atlantic to the Pacific and 9 from the Pacific to the Atlantic. In point of number of transits, net tonnage, and tolls collected, the Atlantic to Pacific traffic sets a new record for traffic in one direction, the previous high mark having been established on October 1, 1927, when 19 vessels were passed from the Atlantic to the Pacific.

The following is a statement showing the commercial traffic of December 8, 1928, by direction:

	Number of transits.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific	22	103,531	$86,224.78	46,992
Pacific to Atlantic	9	37,593	34,282.50	60,794
Totals	31	141,124	120,507.28	107,786

In addition to the commercial vessels as above, an Army transport, a cruiser of the United States Navy, and an Army tug, made the passage from the Pacific to the Atlantic.

In connection with the total transits made on December 8, 1928, 32 lockages were made at Gatun and 33 each at Pedro Miguel and Miraflores, establishing new records for lockages at all locks.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, November, 1928.—Continued from page 281.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.					
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. [1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America. [1]	Balboa, C. Z. [2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East. [1]	Total, Asia.	Australia.	New Zealand.	Australasia. [1]	Total, Australasia.	Grand totals.	Per cent of total cargo.
North America:																								
United States—																								
North Atlantic ports	18,924	986	420	6,330	5,884	32,544	210,149	8	913	....	19	7,258	218,347	35,092	23,864	12,690	39,434	111,080	23,584	2,045	131	25,760	387,731	49.8
South Atlantic ports	....	....	....	....	....	....	1,774	....	....	....	....	....	1,774	3,628	1,680	1,800	2,651	9,759	....	....	....	....	11,533	1.4
Gulf ports	2,033	433	594	1,112	471	4,643	22,928	52	....	....	....	....	22,980	80,076	23,336	661	11,100	115,173	....	....	....	....	142,796	18.3
Totals, U. S.	20,957	1,419	1,014	7,442	6,355	37,187	234,851	60	913	....	19	7,258	243,101	118,796	48,880	15,151	53,185	236,012	23,584	2,045	131	25,760	542,060	69.5
Cristobal, C. Z. [2]	760	3,015	1,139	702	1,492	7,108	3,876	12	8,534	....	....	....	12,422	....	....	....	....	....	....	....	....	....	19,530	2.5
East coast of Canada	....	....	....	....	....	....	....	4,600	....	....	....	....	4,600	1,563	....	....	....	1,563	5,506	6,605	....	12,111	18,274	2.3
West Indies	....	....	....	53	....	53	2,000	....	....	....	....	....	2,000	....	....	....	....	....	....	....	....	....	2,053	0.3
East coast of Mexico and Cen. America	....	....	....	....	....	....	2,108	....	....	....	....	....	2,108	....	....	....	....	....	....	....	....	....	2,108	0.3
Totals, N. America	21,717	4,434	2,153	8,197	7,847	44,348	242,835	4,672	9,447	....	19	7,258	264,231	120,359	48,880	15,151	53,185	237,575	29,090	8,650	131	37,871	584,025	74.9
Europe:																								
British Isles	15,716	....	....	3,726	7,132	26,574	6,933	3,272	....	....	....	3,868	14,073	....	....	....	....	....	....	28,854	4,922	33,776	74,423	9.5
Belgium	1,740	6,275	544	963	694	10,126	91,147	684	16	....	....	....	19,847	....	686	....	....	686	5,834	....	....	5,834	36,493	4.7
France	2,073	....	38	103	2,112	4,326	4,970	500	....	....	....	....	5,470	....	....	....	....	....	....	....	....	....	9,796	1.3
Germany	77	180	486	104	2,090	2,937	5,928	100	....	....	....	3,835	9,863	....	....	....	....	....	....	....	....	....	12,800	1.6
Holland	4	68	....	21	112	205	3,369	237	....	....	....	....	3,606	....	....	....	....	....	....	....	....	....	3,811	0.5
Italy	110	....	....	30	1,475	1,615	1,142	....	338	....	....	....	1,480	....	....	....	....	....	....	....	....	....	3,095	0.4
Norway and Sweden	3,294	1,474	....	611	....	5,379	6,827	295	....	....	335	5	7,462	....	....	....	....	....	36	....	....	36	12,877	1.7
Spain and Portugal	259	....	....	85	467	811	7,250	....	....	....	....	....	7,250	....	....	....	....	....	....	....	....	....	8,061	1.0
Europe [3]	709	8	....	431	21,271	22,419	4,334	2,926	....	....	....	....	7,260	....	....	....	....	....	....	....	....	....	29,679	3.8
Totals, Europe	23,982	8,005	1,068	6,074	35,263	74,392	59,900	8,014	354	....	335	7,708	76,311	....	686	....	....	686	5,870	28,854	4,922	39,646	191,035	24.5
East coast of S. America	....	384	....	....	....	384	4,891	147	....	....	....	....	5,038	270	....	....	....	270	....	....	....	....	5,692	0.6
Grand totals	45,699	12,823	3,221	14,271	43,110	119,124	307,626	12,833	9,801	....	354	14,966	345,580	120,629	49,566	15,151	53,185	238,531	34,960	37,504	5,053	77,517	780,752	100.0
Per cent of total cargo:																								
November, 1928	5.9	1.6	0.4	1.8	5.5	15.2	39.5	1.6	1.3	....	....	1.9	44.3	15.5	6.4	1.9	6.8	30.6	4.5	4.8	0.6	9.9	100.0	.....
November, 1927	7.3	1.2	0.8	3.0	2.3	14.6	35.5	4.2	3.7	....	0.2	0.9	44.5	12.5	4.1	3.2	2.0	21.8	14.6	4.2	0.3	19.1	100.0	.....
November, 1926	2.7	0.9	....	1.0	7.3	11.9	38.1	0.9	2.0	1.9	....	0.9	43.8	11.2	2.5	1.3	6.7	21.7	9.7	9.7	3.2	22.6	100.0	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, November, 1928.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.												East coast of South America.	Egypt.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Central America.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Danzig.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.[2]	Total, Europe.				
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																					
South America:																									
Chile	125,195	7,327	27,813	160,335		71		6,886	167,292	18,836	5,418			3,440	8,276	10,949	3,749	349	1,046	116,920	168,983	3		336,278	19.6
Colombia	2,029			2,029				3,339	5,368						7	37					44	302		5,714	0.3
Ecuador	7,469			7,469		6		2,035	9,510	62	16		4	8	155		610		109	126	1,090	54		10,654	0.6
Peru	5,573		80	5,653	15,184	25		4,184	25,046	8,990	3,928		858	28	12,880	1,050		5,275		12,722	45,741			70,787	4.1
W. coast of S. Amer.[1]	24			24				261	285								38			88	126			411	
Totals, S. America	140,290	7,327	27,893	175,510	15,184	102		16,705	207,501	27,888	9,362		862	3,476	21,318	12,036	4,397	5,624	1,155	129,860	215,984	359		423,844	24.6
North America:																									
West coast, Canada	22,129		276	22,405	2,651	7,825	32	243	33,159	114,155	4,190			4,496	15,729	28,322	4,500	4,380	37,949	16,206	229,927	1,326		264,412	15.3
W. coast Cen. Amer	14			14				1,146	1,160															1,160	0.1
W. coast of U. S.	608,629	3,036	26,825	638,489	5,864	21,519	8,425	3,762	678,059	153,875	9,856		608	29,756	12,992	11,794	1,854	4,374	7,572	35,460	268,141	7,369		953,569	55.4
Totals, N. America	630,771	3,036	27,101	660,908	8,518	29,344	8,457	5,154	712,378	268,030	14,046		608	34,252	28,721	40,116	6,354	8,754	45,521	51,666	498,068	8,695		1,219,141	70.8
Asia:																									
China	1,610	49		1,659				363	2,022															2,022	0.1
Japan	555			555				31	586															586	
Philippines	19,710		943	20,653					20,653															20,653	1.2
Far East[1]	1,715			1,715		7,125			8,840															8,840	0.6
Totals, Asia	23,590	49	943	24,582		7,125		394	32,101															32,101	1.9
Australasia:																									
Australia	4,360			4,360	25			65	4,450															4,450	0.3
New Zealand										29,916											29,916			29,916	1.7
Australasia[1]										7,550				3,876							11,426			11,426	0.7
Totals, Australasia	4,360			4,360	25			65	4,450	37,466				3,876							41,342			45,792	2.7
Grand totals	799,011	10,412	55,937	865,360	23,727	36,571	8,457	22,315	956,430	333,384	23,408		1,470	41,604	50,039	52,152	10,751	14,378	46,676	181,532	755,394	9,054		1,720,878	
Per cent of total cargo:																									
November, 1928	46.4	0.6	3.3	50.3	1.4	2.1	0.5	1.3	55.6	19.4	1.4		0.1	2.4	2.9	3.0	0.6	0.8	2.8	10.5	43.9	0.5			100.0
November, 1927	41.5	1.9	2.2	45.6	1.4	2.4	0.1	3.4	52.9	13.5	1.2	0.3	0.6	1.9	3.7	1.3	2.5	1.5	1.8	15.8	44.1	2.3	0.7		100.0
November, 1926	54.4	1.8	1.6	57.8	3.4	0.7	0.1	2.5	64.5	13.4	0.7		0.1	2.0	2.8	0.5	1.1	1.1	0.7	10.8	33.2	1.4	0.9		100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Fresh Water in Gatun Lake.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *December 18, 1928.*

MEMORANDUM TO ALL STEAMSHIP AGENTS:

1. The following is quoted from Chapter 15, paragraph 15 (page 67), of the Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters:

Fresh water in Gatun Lake.—Water in Gatun Lake between Gatun and Darien, is suitable for boiler use, but not for drinking, and can be taken in by vessels during transit, with the knowledge of the pilot, provided the trim of the ship is not altered materially thereby or the ship delayed.

2. Your attention is particularly invited to the statement that Gatun Lake water is not suitable for drinking purposes. This statement is of importance in view of the report by the Public Health Service of the United States that infectious diarrhea broke out on board a ship using Gatun Lake water, even though this water is said to have been distilled.

3. It is requested that this matter be brought to the attention of all masters of ships transiting The Panama Canal.

C. H. WOODWARD,
Marine Superintendent.

Approved:
J. L. SCHLEY
Acting Governor.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *December 18, 1928.*

No. 498.

The following was received by the Hydrographic Office through the Colon Radio:

Report received from Dutch steamship *Orespes*, December 14, 1928, Buenaventura River, Colombia. Wreck of Soldado Point N. 50° E., distance 1¾ miles. Entering Buenaventura River without pilot at night is not advisable, dangerous to shipping.

(Signed) J. R. VANDERBEER, *Master, S. S. Orespes.*

J. L. SCHLEY,
Acting Governor.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *December 18, 1928.*

No. 499:

The Panama Canal established, December 12, 1928, spar buoys to mark the Pacheca and Contadora Channels, Saboga Anchorage, Pearl Islands, Panama Bay, as follows:

(*a*) Red Spar Buoy, marking northern limit of the long shoal extending north from Saboga Island, on the following bearings: Pacheca Island, left tangent, 25° 00′ true; center of Bartholomew Island, 107° 00′ true; church, Saboga Island, 172° 30′ true.

(*b*) Red spar buoy, marking the northeastern limit of the above shoal, on the following bearings: Center of Bartholomew Islands, 91° 15′ true; church, Saboga Island, 193° 30′ true; Pacheca Island, left tangent, 344° 30′ true.

(*c*) Red spar buoy, marking the southern limit of the shoal extending south from Bartholomew Island, on the following bearings: Center of Bartholomew Island, 11° 30′ true; Contadora Island, left tangent, 135° 30′ true; church, Saboga Island, 239° 00′ true.

(*d*) Black spar buoy, marking the northern limit of the tip of shoal northeast of Contadora Island, on the following bearings: Contadora Island, left tangent, 176° 30′ true; church, Saboga Island, 251° 00′ true; center of Bartholomew Island, 326° 00′ true.

J. L. SCHLEY,
Acting Governor.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., December 26, 1928. No. 21.

"Belgenland" Transits Canal on Cruise Around the World.

The British liner *Belgenland*, with 325 passengers aboard, transited the Canal from the Atlantic to the Pacific on December 25, 1928, on the first leg of her annual round-the-world cruise. The cruise, which is the fifth around the world by this vessel, is being conducted by the American Express Company. The vessel is owned by the Red Star Line and when not used for cruise purposes is operated by her owners in the transatlantic service.

The registered gross and net tonnages of this vessel, 27,132 and 15,352 respectively, are greater than those of any other vessel transiting the Canal to date. Tolls for transiting the Canal were $16,412.50.

Supplement No. 12.—Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters.

THE PANAMA CANAL, EXECUTIVE OFFICE
BALBOA HEIGHTS, C. Z., *December 18, 1928.*

Paragraph 15 of Chapter XV of the Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters is amended to read as follows:

"15. *Fresh Water in Gatun Lake:* Water in Gatun Lake between Gatun and Darien is suitable for boiler use, and can be taken in by vessels during transit, with the knowledge of the pilot, provided the trim of the ship is not altered materially thereby or the ship delayed. None of the water in Gatun Lake or in any other part of the Canal should be taken for drinking purposes, owing to the liability of its contamination by sewage from ships and from settlements within the watershed."

J. L. SCHLEY,
Acting Governor.

CANAL WORK IN NOVEMBER, 1928.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of November, 1928.

BALBOA HEIGHTS, C. Z., *December 17, 1928.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of November, 1928:

NUMBER OF TRANSITS.

During the month 527 commercial vessels passed through the Canal. In addition to these, 5 seagoing launches measuring under 20 tons, and 29 vessels belonging to or chartered by the United States Government transited the Canal. There were also two transits of Panaman Government vessels and one transit of a vessel solely for repairs on which no tolls were collected, making a total of 564 transits for the month or a daily average of 18.8.

Tolls on the 527 commercial vessels amounted to $2,225,937.48, and on the launches to $20.40, a total of $2,225,957.88, or a daily average on all traffic of $74,198.59.

Total commercial traffic for November was lower by 30 transits and about $49,000 in tolls than that for the previous month, and lower by 32 transits and over $143,000 in tolls than November, 1927. Traffic for the first 11 months of the current calendar year, however, shows a substantial increase over that for the same period in 1927.

The total numbers of craft of all kinds transiting the Canal during the month of November, 1928, as compared with the same month in 1927 and 1926, are shown in the following tabulation:

	November, 1928.	November, 1927.	November, 1926.
Commercial vessels	527	559	428
Noncommercial vessels (Army and Navy)	29	36	33
Launches (under 20 tons)	5	14	19
Panaman Government vessels	2	.....	2
Colombian Government vessels	.....	1	.....
Vessels for repairs	1	.....	.....
Totals	564	610	482

In addition to the vessels listed above, Panama Canal equipment, consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	25	22	47
Pedro Miguel	33	29	62
Miraflores	34	30	64
Totals	92	81	173

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the calendar year 1928, to the end of November, 1928, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927.	1928.	1927.	1928.	1927.	1928.	1927.	1928.
January	443	540	2,121,631	2,422,770	2,241,765	2,372,061	$1,984,760.71	$2,212,752.50
February	449	547	2,201,328	2,460,111	2,230,107	2,660,425	1,994,860.82	2,253,755.37
March	496	542	2,413,999	2,441,077	2,533,525	2,428,662	2,217,913.20	2,223,370.57
April	464	531	2,224,500	2,384,491	2,429,807	2,473,884	2,065,206.92	2,187,607.82
May	471	508	2,248,892	2,274,612	2,379,713	2,497,588	2,066,070.73	2,118,969.83
June	455	481	2,152,926	2,227,865	2,229,097	2,139,565	1,970,377.97	2,016,211.06
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	2,215,515.99	2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
September	540	487	2,532,942	2,295,053	2,397,753	2,313,011	2,294,432.34	2,111,230.56
October	567	557	2,585,752	2,515,380	2,717,646	2,582,477	2,380,115.97	2,274,945.30
November	559	527	2,591,717	2,468,297	2,488,882	2,501,630	2,369,267.99	2,225,937.48
Totals	5,496	5,755	25,994,256	26,245,297	26,528,710	26,686,594	23,832,563.19	23,932,933.02

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for November, 1928, as compared with the corresponding month in 1927 and 1926, and the monthly averages for the fiscal year 1928:

	November, 1928.	November, 1927.	November, 1926.	Average per month for fiscal year
Number of vessels	527	559	428	538
Panama Canal net tonnage	2,468,297	2,591,717	2,032,488	2,454,886
United States net tonnage	1,877,058	2,014,863	1,591,593	1,905,316
Registered gross tonnage	3,078,578	3,252,509	2,583,361	3,100,239
Registered net tonnage	1,882,770	2,007,095	1,594,534	1,903,974
Tolls	$2,225,937.48	$2,369,267.99	$1,889,001.11	$2,245,374.98
Tons of cargo carried	2,501,630	2,488,882	2,272,449	2,469,225

The daily average number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for fiscal year.
	November, 1928.	November, 1927.	November, 1926.	
Number of transits	17.57	18.63	14.27	17.63
Panama Canal net tonnage	82,276	86,391	67,750	80,488
Tolls	$74,197.91	$78,975.60	$62,966.70	$73,618.85
Tons of cargo carried	83,387	82,963	75,748	80,958

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of November, 1928, as compared with November, 1927 and 1926, are shown in the following tabulation:

	Average per vessel.		
	November, 1928.	November, 1927.	November, 1926.
Panama Canal net tonnage	4,683	4,636	4,749
United States net tonnage	3,562	3,604	3,719
Registered gross tonnage	5,842	5,818	6,036
Registered net tonnage	3,573	3,591	3,726
Tolls	$4,223.79	$4,238.40	$4,413.55
Tons of cargo (including vessels in ballast)	4,747	4,452	5,309
Tons of cargo (laden vessels only)	5,698	5,593	6,312

TOLLS.

At present tolls are collected at rates of $1.20 per net ton for laden vessels and 72 cents per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed $1.25 per ton nor be less than 75 cents per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage or vessels transiting the Canal be determined both in accordance with the Panama Canal and the United States rules of measurement.

Due to this limiting proviso the tolls actually collected on laden vessels averaged $0.93 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of November, 1928, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1.00 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
British	$701,638.09	$724,206.80	$22,568.71	
Chilean	8,623.75	9,377.00	753.25	
Colombian	1,740.65	1,459.00		$281.65
Danish	31,186.00	31,460.00	274.00	
Danzig	22,058.72	19,905.60		2,153.12
Dutch	56,748.87	61,962.60	5,213.73	
French	36,762.50	38,139.00	1,376.50	
German	98,585.01	110,240.80	11,655.79	
Greek	28,192.79	26,040.00		2,152.79
Italian	27,107.20	29,352.00	2,244.80	
Japanese	75,651.45	72,286.00		3,365.45
Norwegian	52,773.68	60,514.40	7,740.72	
Panaman	3,883.75	5,584.00	1,700.25	
Peruvian	6,260.00	10,728.00	4,468.00	
Spanish	33,270.19	30,988.20		2,281.99
Swedish	48,174.27	52,746.60	4,572.33	
United States	976,382.09	997,318.80	20,936.71	
Yugoslav	16,898.47	16,874.60		23.87
Totals	2,225,937.48	2,299,183.40	83,504.79	10,258.87
Net increase for all traffic			73,245.92	

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$14,165.64
United States foreign trade	7,012.82
United States-Canal Zone trade	[1] 241.75
Net increase	20,936.71

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in November, 1928, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	.76	1.45	1.15
Chilean	.49	1.02	.76
Colombian	2.33	1.31	1.43
Danish	1.37	1.70	1.54
Danzig		1.81	1.81
Dutch	.44	1.56	1.06
French	.41	1.42	1.07
German	.81	1.45	1.11
Greek	1.31	1.81	1.50
Italian	.19	1.04	.56
Japanese	1.12	1.51	1.25
Norwegian	1.05	1.62	1.27
Panaman	1.37	.13	.77
Peruvian	.09	.73	.41
Spanish	.09	1.67	1.46
Swedish	1.29	2.38	2.01
United States	.89	1.55	1.26
Yugoslav	1.55	1.86	1.73
Averages, November, 1928	.85	1.53	1.22
Averages, November, 1927	.71	1.55	1.21
Averages, November, 1926	1.00	1.54	1.32

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of November, 1928, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	1	6,727	$7,132.50	44	233,612	$241,705.35
Ballast	36	197,885	142,477.20			
General cargo ships:						
Laden	188	914,631	835,557.15	205	890,505	836,924.00
Ballast	48	220,341	158,747.83	2	4,037	2,906.64
Noncargo-carrying ships:						
Yachts	2	456	346.56			
Tugs				1	103	140.25
Totals	275	1,340,040	1,144,261.24	252	1,128,257	1,081,676.24
Method of propulsion:						
Steam	220	1,067,893	930,100.85	208	939,655	907,696.70
Motor	54	272,109	214,114.79	44	188,602	173,979.54
Motor (schooner)	1	38	45.60			
Totals	275	1,340,040	1,144,261.24	252	1,128,257	1,081,676.24

Of the 428 steam-driven vessels, 252 were oil burning, 168 coal burning, and 8 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of November, 1928. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Ammunition ships	1	[3] 4,405	$5,506.25	.....	.....	.....
Cruisers	2	[1] 6,400	3,200.00	.....	.....	.....
Minesweepers	.....	.....	.....	1	[1] 950	$475.00
Submarines	6	[2] 3,454	1,727.00	7	[2] 3,974	1,987.00
Supply ships	1	[2] 3,434	4,292.50	.....	.....	.....
Tankers	1	[2] 5,121	3,840.75	2	[2] 11,379	13,654.80
Tugs	2	[1] 1,704	852.00	1	[1] 1,000	500.00
U. S. Army vessels:						
Launches	2	[3] 20	15.00	.....	.....	.....
Transports	1	[2] 3,908	4,885.00	.....	.....	.....
Tugs	1	[1] 1,208	604.00	1	[1] 1,208	604.00
Totals, U. S. Government	17	.....	24,922.50	12	.....	17,220.80
Panaman Government vessels:						
Transports	.....	.....	.....	1	[3] 98	73.50
Yachts	.....	.....	.....	1	[2] 52	37.44
Vessels for repairs:						
Cable ships	.....	.....	.....	1	[2] 875	630.00
Grand totals	17	.....	24,922.50	15	.....	17,961.74

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of November, 1928, carried cargo as follows: Atlantic to Pacific, 5,910 tons; Pacific to Atlantic, 17,956 tons; total, 23,866 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement transiting the Canal during the month of November, 1928. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific	4	19	$17.40
Pacific to Atlantic	1	4	3.00
Totals	5	23	20.40

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of November, 1928, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving.....tons	114,109	47,796	161,905
Local cargo shipped.....tons	12,861	1,129	13,990
Transit cargo arriving.....tons	2,518,150	2,499,796	5,017,946
Transit cargo clearing.....tons	2,539,964	2,518,083	5,058,047
Cargo received for transshipment.....tons	41,403	1,435	42,838
Cargo transshipped.....tons	36,082	439	36,521
"Canal Zone for Orders" cargo:			
Number of receipts issued	65	27	92
Number of withdrawals	518	145	663
Tons received	2,674	3,280	5,954
Tons withdrawn	4,389	3,277	7,666
Packages received	7,007	237	7,244
Packages withdrawn	6,370	277	6,647

	Cristobal.	Balboa.	Total.
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company	66	7	73
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company, tons	20,832	51	20,883
Coal issued, miscellaneous:			
Panama Canal departments, tons	62	7	69
U. S. Army, including vessels, tons	31	12	43
Individuals and companies, tons	173	.....	173
Transferred to Navy, tons	70	.....	70
Total sales and issues, tons	21,168	70	21,238
Coal on hand, November 1, 1928, tons	32,005	.....	32,005
Coal on hand, December 1, 1928, tons	48,058	.....	48,058
Coal received during month, tons	37,221	.....	37,221
Coal received from Navy, tons	.....	70	70
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments, bbls.	7,465.14	13,948.46	21,413.60
Panama Railroad Company, bbls.	454.91	.....	454.91
U. S. Army and Navy, bbls.	579.90	123.57	703.47
Individuals and companies, bbls.	.....	192.55	192.55
Total sales and issues, bbls.	8,499.95	14,264.58	22,764.53
Fuel oil on hand, December 1, 1928, bbls.	58,004.54	56,684.19	114,688.73
Diesel oil received during November, bbls.	.....	39.29	39.29
Diesel oil sold during November, bbls.	155.96	.....	155.96
Diesel oil on hand, December 1, 1928, bbls.	23,370.10	493.25	23,863.35
Miscellaneous transfers, bbls.	410.60	4,263.22	4,673.82
Gasoline and kerosene pumped for The Panama Canal, bbls.	1,448.78	15,381.79	16,830.57
Gasoline pumped for individuals and companies, bbls.	.....	5,260.78	5,260.78
Oil pumped for individuals and companies, bbls.	539,758.94	523,881.52	1,063,630.46
Oil pumped for U. S. Shipping Board, bbls.	110.00	2,824.00	3,234.00
Oil pumped for U. S. Navy, bbls.	28,263.00	9,925.00	38,188.00
Total fuel oil, gasoline, and kerosene handled, bbls.	578,937.23	575,840.18	1,154,877.41
Admeasurement of vessels:			
U. S. equivalent certificates issued	36	5	41
Measured for Panama Canal net tonnage	6	2	8
Remeasured for Panama Canal net tonnage	36	3	39
Panama Canal net tonnage corrected	2	9	11
U. S. equivalent tonnage corrected	8	4	12
Services of harbor equipment:			
Tugs, total operating hours	476½	326½	802¾
Launches, total operating hours	1,495	1,578	3,073
Revenue from tug service, pilotage, etc.:			
Tug revenue	14,791.25	10,327.50	25,118.75
Pilotage	19,834.00	7,831.00	27,665.00
Seamen	12,800.00	11,536.00	24,336.00
Launch service	2,277.50	2,914.50	5,192.00
Wharfage	17,222.17	5,253.12	22,475.29
Ships measured	260.00	100.00	360.00
Miscellaneous	1,383.05	1,036.00	2,419.05
Ships repaired at Panama Canal shops:			
Commercial	51	11	62
U. S. Army and Navy	6	8	14
Panama Canal equipment	6	10	16
Totals	63	29	92
Vessels dry-docked:			
Commercial	1	1	2
U. S. Army and Navy	1	3	4
Panama Canal equipment	1	3	4
Totals	3	7	10
Clearances issued	307	289	596
Bills of health issued	302	289	591

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	601	3,457,868	2,120,452	561	3,198,628	1,973,463
Vessels entering port but not transiting Canal	70	301,902	182,377	16	55,902	40,019
Vessels transiting Canal and handling passengers and cargo at terminal ports	124	702,986	426,195	94	660,957	355,430

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships clearing.						
All vessels, including those transiting Canal	598	3,452,174	2,109,991	562	3,196,654	1,969,708
Vessels clearing port but not transiting Canal	67	294,870	177,987	15	46,902	31,019
Vessels transiting Canal and handling passengers and cargo at terminal ports	122	699,106	422,589	92	652,273	350,872

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,423	741	2,164	106	170	276
From Pacific ports	230	65	295	419	1,032	1,451
Total disembarking	1,653	806	2,459	525	1,202	1,727
Embarking:						
For Atlantic ports	1,106	559	1,665	46	31	77
For Pacific ports	323	213	536	289	197	486
Total embarking	1,429	772	2,201	335	228	563
Remaining on board:						
From Atlantic to Pacific ports	2,324	3,082	5,406	2,391	2,741	5,132
From Pacific to Atlantic ports	571	517	1,088	733	675	1,408
From Atlantic to Atlantic ports	481	185	666	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	21	361	382
Total remaining on board	3,376	3,784	7,160	3,145	3,777	6,922
Total arriving	5,029	4,590	9,619	3,670	4,979	8,649
Total departing	4,805	4,556	9,361	3,480	4,005	7,485

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	275	54	19.6
Pacific to Atlantic	252	54	21.4
Totals	527	108	20.5

In addition to the aforesaid, 60 passenger-carrying vessels called at the port of Cristobal, and 3 at Balboa without transiting the Canal, making a total of 171 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of November, 1928:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$2,889.10	$14,153.75	$32,283.38	$472.40	$6,716.98	$56,515.61
Government vessels	178.20	1,820.46	11,149.62	38.26	1,057.85	14,244.39
Panama Railroad vessels	.....	8.41	1,636.98	821.51	359.54	2,826.44
Total sales, November, 1928	3,067.30	15,982.62	45,069.98	1,332.17	8,134.37	73,586.44
Total sales, November, 1927	2,117.80	12,068.52	32,321.47	893.48	7,384.59	54,785.86
Total sales, November, 1926	1,931.96	11,593.52	33,386.21	950.40	4,919.17	52,781.26
Sales at Balboa to:						
Commercial vessels	1,449.70	9,589.29	11,594.35	192.28	13,500.43	36,326.05
Government vessels	137.93	2,055.66	7,673.17	528.51	216.82	10,612.09
Total sales, November, 1928	1,587.63	11,644.95	19,267.52	720.79	13,717.25	46,938.14
Total sales, November, 1927	2,226.41	13,449.86	32,417.26	527.14	5,207.66	53,828.33
Total sales, November, 1926	585.07	10,004.97	19,990.19	644.54	2,845.63	34,070.40

The aggregate sales to Government vessels during the month was $24,856.48; to Panama Railroad vessels, $2,826.44; and to other commercial vessels, $92,841.66; making the total sales to all vessels, $120,524.58.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of November, 1928, as compared with the corresponding month in 1927 and 1926:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Nov., 1928.	Nov., 1927.	Nov., 1926.
Gatun	239	265	504	8	5	13	517	547	418
Pedro Miguel	244	274	518	14	13	27	545	562	438
Miraflores	244	273	517	15	12	27	544	563	434
	Number of vessels put through locks.								
Gatun	253	276	529	25	22	47	576	643	514
Pedro Miguel	253	278	531	51	45	96	627	666	521
Miraflores	253	278	531	52	46	98	629	668	521

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	33	29	29
Panama Canal equipment	6	62	64
Launches (under 20 tons)	6	2	2
Panama Government vessels	1	[illegible]	2
Vessels for repairs	1	1	1

The total consumption of water for lockages, loss in leakage and maintenance was as follows in November, 1928, as compared with the preceding month and the corresponding month in 1927:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	2,142,490,000	1,731,440,000	1,631,910,000
Leakage	20,000,000	30,500,000	20,000,000
Maintenance	8,970,000	.....	47,950,000
Totals, November, 1928	2,171,460,000	1,761,940,000	1,699,860,000
Totals, October, 1928	2,221,740,000	1,863,340,000	1,779,450,000
Totals, November, 1927	2,228,920,000	1,857,470,000	1,742,460,000

HYDROGRAPHY.

In the following tabulation the hydrographic conditions in the Canal Zone and vicinity during the month of November, 1928, are shown in comparative form:

	November.		November—Years of record.		
	1928.	1927.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	5,933	4,835	11,300	2,267	4,586
Maximum momentary discharge	27,460	30,500	[1] 78,900	.....	.....
Gatun Lake watershed, total yield	17,242	12,868	24,488	8,673	13,537
Gatun Lake watershed, net yield	16,732	12,396	23,950	7,995	13,029
Draft on Gatun Lake for lockages and power	2,954	3,006	3,006	[2] 1,006	2,279

[1] November 19, 1909. [2] Does not include November, 1914.

The total yield of the Gatun Lake watershed for the month of November was 27 per cent above the 15-year November average, or 17,242 c. f. s. compared with an average of 13,537 c. f. s. It is also the highest November yield since 1917. Maximum and minimum November total yields of record are 24,488 c. f. s. in 1917 and 8,673

c. f. s. in 1919, respectively. The lake varied in elevation from 86.30 feet on the 23d to 86.72 feet on the 14th, averaged 86.55 feet, and ended at elevation 86.65 feet. Miraflores Lake varied from an elevation of 53.22 feet on the 15th to an elevation of 54.62 feet on the 27th, averaged 53.91 feet, and ended at elevation 54.30 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 1st and 8th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 4,912,200 kilowatt hours, and the computed water consumption was 3,774,130,815 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 21,700 kilowatt hours, with a fuel oil consumption of 70.16 barrels.

In addition to the usual operating and maintenance work performed, 37 work orders, comprising 137 items of additions or repairs were completed on 23 vessels during the month. There were 378 work orders issued during the month, as compared with 457 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 63 vessels at Cristobal and 29 at Balboa. Three vessels were dry-docked at Cristobal and 7 at Balboa. At Cristobal the annual overhaul of the United States Navy's submarine *S–15* and the overhaul of the machinery and repairs to deck and superstructure of The Panama Canal tug *Tavernilla* was continued during the month. At Balboa work was completed on the United States Army's mineplanter *General G. W. Getty*. The U. S. A. T. *Cambrai* was docked for inspection of hull damaged in running aground, and necessary temporary repairs made. Work was completed on the Navy's submarines *S–14* and *S–17*, and the lighthouse tender *Acacia* was docked for annual underwater work and inspection.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. At the site of the Alhajuela Dam, work was carried forward on the camp for housing of employees and other preliminary work in connection with the construction of the dam. Work was also continued on road leading to dam site.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 683,835,250 gallons.

DREDGING DIVISION.

South Cucaracha slide, after remaining quiescent from the 1st to the 9th, resumed movement and continued during the remainder of the month. Twenty-seven thousand three hundred cubic yards of material were removed in front of this slide.

On the 6th of the month, the high bank at the south end of the La Pita curve, west side, broke back about 180 feet from the prism line and fell to the 95-foot rock berm. A number of large boulders lodged upon the berm and were broken up in anticipation of their entering the channel at some future time. The quantity of material entering the Canal prism was negligible. There was no further movement of this slide.

East and West Culebra slides showed a slight general movement toward the Canal during the month. A movement occurred on the 15th of the month at the north end of West Culebra slide, the bank breaking back for a distance of 400 feet from the west prism line. The back break line is at elevation about 160 feet above mean lake level. This localized movement continued for two or three days and then became quiescent. The amount of material entering the Canal was small.

On the morning of the 29th, the rock point at West Lirio slide and part of the completed portion of Lirio Curve, broke up and pushed across the new prism line to the old prism line, with 42 feet on this line. The break line is about 150 feet back from the new prism line at an elevation 65 feet mean lake level. Another section of Lirio Curve shows a slight settlement on top, 400 feet back from the new prism line and at elevation 115 feet mean lake level.

Due to the unusually heavy rainfall during the month, there were many small bank breaks throughout the Cut. There were no delays to shipping during the month on account of slides.

The total excavation during November was 227,248 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Project No. 2, Lirio Curve	6,950	38,500	45,450
South Cucaracha slide	6,850	20,450	27,300
West Culebra slide	2,150	250	2,400
Balboa inner harbor—			
Project No. 1	11,700	39,200	50,900
Maintenance	9,800	.....	9,800
Plant excavation:			
Naval air station fill, Coco Solo	88,500	.....	88,500
Dredging sand at Chame	2,898	.....	2,898
Totals	128,848	98,400	227,248

The ferry crossing at the north end of Pedro Miguel lock operated 30 days during the month. Four hundred and sixty-four trips were made, and 48 Panama Canal, 3 U. S. Army, and 1,446 other vehicles, a total of 1,497, were ferried across the Canal.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on November 30, 1928, totaled 21,614, composed of 7,507 Americans, 2,696 of whom were men, 2,262 women, and 2,549 children; 207 Europeans, 96 of whom were men, 32 women, and 79 children; and 13,900 West Indians, 4,075 of whom were men, 2,594 women, and 7,231 children. The total number of persons in quarters on November 30, 1927, was 21,272.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of November, 1928, with a comparison of the working force for the preceding month and for November, 1927:

	As of November 21, 1928.			Total employees.	
	Gold.	Silver.	Total.	October, 1928.	November, 1927.
Operation and Maintenance:					
Office	42	58	100	99	84
Electrical	157	152	309	329	326
Municipal Engineering	86	974	1,060	988	658
Lock Operation	231	689	920	909	828
Dredging	175	927	1,102	1,096	1,082
Mechanical	474	891	1,365	1,354	1,266
Marine	207	659	866	842	837
Fortifications	23	269	292	327	268
Totals	1,395	4,619	6,014	5,944	5,349
Supply Department:					
Quartermaster	198	1,807	2,005	2,112	1,904
Subsistence	7	104	111	107	104
Commissary	220	1,239	1,459	1,419	1,323
Cattle Industry	6	137	143	132	231
Hotel Washington	9	96	105	102	104
Transportation	53	205	258	265	253
Totals	493	3,588	4,081	4,137	3,919
Accounting Department	197	8	205	202	209
Health Department	272	843	1,115	1,158	1,069
Executive Department	515	301	816	818	791
Totals	984	1,152	2,136	2,178	2,069
Panama Railroad Company:					
Superintendent	51	281	332	318	272
Transportation	62	118	180	180	178
Receiving and Forwarding Agency	87	1,395	1,482	1,844	1,621
Coaling stations	48	311	359	319	312
Totals	248	2,105	2,353	2,661	2,383
Grand totals, November, 1928	3,120	11,464	14,584	.....	.....
Grand totals, October, 1928	3,140	11,780	.....	14,920	.....
Grand totals, November, 1927	2,951	10,769	.....	.....	13,720

Additions to the gold force on the Isthmus in November were as follows: Employed in the United States, 12; reemployed in the United States, 10; employed on the Isthmus, 14; reemployed on the Isthmus, 4; total 40. Separations from the gold force totaled 34, as follows: Resigned, 18; discharged, 12; retired, 2; died, 2. At the end of the month there were on file 153 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 190 deaths occurred during the month of November, 1928, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 17.60 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 30; pneumonia (broncho and lobar), 30; diarrhea and enteritis, 17; organic diseases of the heart, 14; and nephritis (acute and chronic), 11. There were 8 deaths from syphilis, 7 from cancer, 4 from apoplexy, 2 from amebic dysentery, and 1 from leprosy. There were 11 deaths among nonresidents. These are not included in the above statistics.

There were 294 live births, and 22 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 29.28 per 1,000 population. Deaths among children under 1 year of age numbered 47, giving an infant mortality rate of 159.86.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during November was 87, of whom 12 were employees (1 white and 11 colored), 3 were members of employees' families (all colored), 15 were Canal Zone agriculturists, 31 were other civilian nonemployees, and 26 were Army and Navy personnel. Of the 15 employees and members of employees' families, 12 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick. There was 1 death from malaria, a native residing in Panama City who acquired his infection in Juan Diaz.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $418,341.76, of which $384,824.97 was for the Department of Operation and Maintenance and $33,516.79 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to $37,760.08.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of October, 1928, as compared with October, 1927, with the figures for the first four months of the current fiscal year as compared with the same period in the fiscal year 1928.

It is impossible to submit the figures for the month of November at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	October, 1928.	October, 1927.	To end of October.	
			This year.	Last year.
Tolls	$2,274,601.05	$2,380,174.47	$8,692,364.99	$9,164,441.07
Other receipts	304,684.58	293,436.40	1,262,868.75	1,152,569.03
Total transit revenues	2,579,285.63	2,673,610.87	9,955,233.74	10,317,010.10
Total transit expenses	1,082,823.40	1,033,906.14	4,200,617.13	3,922,511.40
Net transit revenues	1,496,462.23	1,639,704.73	5,754,616.61	6,394,498.70
Three per cent capital charge	615,210.45	612,643.23	2,463,122.85	2,442,368.21
Transit surplus	881,251.78	1,027,061.50	3,291,493.76	3,952,130.49
Business revenues	1,257,014.11	1,220,232.04	5,067,570.89	5,049,692.69
Business expenses	1,193,230.35	1,139,028.29	4,808,002.79	4,717,279.50
Net business revenues	63,783.76	81,203.75	259,705.10	332,413.19
Three per cent capital charge	60,893.58	59,838.61	255,645.80	253,433.44
Business surplus	2,890.18	21,365.14	4,059.30	78,979.75
Combined revenues	3,836,299.74	3,893,842.91	15,022,941.63	15,366,702.79
Combined expenses	2,276,053.75	2,172,934.43	9,008,619.92	8,639,790.90
Net revenues	1,560,245.99	1,720,908.58	6,014,321.71	6,726,911.89
Three per cent capital charge	676,104.03	672,481.84	2,718,768.65	2,695,801.65
Combined surplus	884,141.96	1,048,426.64	3,295,553.06	4,031,110.24

Respectfully,

J. L. SCHLEY,
Acting Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 22, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Kaloudo	15	13.20	16	6.10	16	12.57	16	14.20	Greek	G. Assimomitis	389.8	53.2	16.0	Amst'dam, Holland	Arica, Chile	Ballast		5,601	3,877
San Eduardo	15	18.55	16	6.12	16	13.46	16	15.05	British	Anglo-Mex. Pet. Co.	420.0	54.0	20.5	Hull, England	Los Angeles, Calif.	Ballast		6,391	4,382
Alaska	16	6.38	16	7.25	16	14.36	16	19.10	Norwegian	Scand. So. Pacific Line	410.0	54.1	18.3	Antwerp, Belgium	Valparaiso, Chile	General	1,780	6,563	4,799
Probitas [2]	16	6.05	16	7.55	16	15.21	16	21.00	Italian	Industries Armamente	385.7	49.0	16.0	Philadelphia, Pa.	Seattle, Wash.	Ballast		5,657	4,069
Atrato [2]	7	17.55	16	7.15	16	17.18	20	3.30	Colombian	Colombian Transp. Co	94.0	24.0	8.0	Cristobal, C. Z.	Buenaventura, Col.	General	160	160	92
Melpomene [1]	16	7.48	16	8.15	16	16.08	16	22.50	French	French Line	425.8	56.9	20.0	Sette, France	Los Angeles, Calif.	Ballast		7,085	5,050
Acajutla	7	16.35	16	9.25	16	17.13	16	18.20	British	Pacific Steam Nav. Co.	215.7	33.5	16.5	Cristobal, C. Z.	Champerico, Guat.	General	1,123	1,273	706
Kentuckian	16	10.08	16	10.25	16	17.38	16	19.00	American	Amer.-Hawaiian Line	414.5	53.7	21.4	Boston, Mass.	Portland, Oreg.	General	2,782	7,049	4,941
J. W. Van Dyke [1] [2]	15	5.55	16	11.15	16	18.40	16	19.50	American	Atlantic Refining Co.	364.9	51.0	20.6	Durban, Africa	Los Angeles, Calif.	Ballast		5,174	3,528
Watertown [2]	16	11.03	16	12.20	16	19.37	17	2.54	American	Cities Service Trans. Co.	416.9	56.2	17.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		6,717	4,778
Kilcredane	16	9.25	16	14.05	16	22.10	16	23.45	British	Limerick S. S. Co.	400.0	52.0	28.8	Casa Blanca, Mor.	New Zealand	Phosphates	7,700	6,577	4,564
Penelope [1] [2]	16	21.50	17	6.30	17	13.44	18	10.10	Danzig	Standard Oil Co.	470.0	63.0	19.0	Hamburg, Germany	Talara, Peru	Ballast		9,302	6,127
Limon	17	3.50	17	6.25	17	13.08	17	14.20	American	United Fruit Co.	330.0	44.0	19.0	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	575	3,675	2,229
Muncaster Castle	17	5.25	17	7.23	17	14.28	17	15.35	British	Barber S. S. Line	428.0	56.0	23.0	New York, N. Y.	Cebu, Philippines	Case oil, general	5,800	7,596	5,159
Romanstar	17	7.00	17	7.30	17	15.15	17	16.45	British	Blue Star Line	420.0	54.0	18.0	Liverpool, England	Vancouver, B. C.	Ballast		7,433	5,870
Invincible	17	8.30	17	8.45	17	16.00	17	18.00	American	Amer.-Pioneer Line	440.0	56.0	24.0	New Orleans, La.	Yokohama, Japan	([6])	6,843	8,329	6,157
Anglo-Australian	17	9.35	17	9.55	17	16.46	17	18.10	British	Lawther, Latta & Co.	426.0	58.0	16.0	Marseillaise, France	Vancouver, B. C.	Ballast		7,341	5,444
Bridgepool	17	10.10	17	10.30	17	17.34	17	18.43	British	Blue Star Line	390.0	55.5	25.0	Antwerp, Belgium	Los Angeles, Calif.	Cement	6,600	5,889	4,274
Japan Arrow [1]	17	14.38	17	14.50	17	21.55	17	23.55	American	Standard Transp. Co.	468.3	62.7	20.0	New York, N. Y.	San Francisco, Cal.	Ballast		10,084	7,426
El Panquiaco [5]	18	6.00	18	6.00	18	14.12			Panaman	Panaman Government	125.0	25.0		Colon, R. P.	Balboa, C. Z.	Ballast		288	101
Sithonia	17	15.12	18	6.15	18	14.17	18	16.00	British	H. M. Thomson	420.0	56.0	26.0	Nuevitas, Cuba	Shanghai, China	Sugar	7,450	6,753	4,823
Zenon	17	15.35	18	6.05	18	15.06	18	16.00	French	French Line	425.0	55.0	21.6	Havre, France	Vancouver, B. C.	General	2,471	6,982	4,834
Pacific Cedar	17	21.30	18	7.15	18	15.55	18	17.15	American	Dimon S. S. Corp.	399.0	54.0	20.0	New York, N. Y.	Seattle, Wash.	General	3,318	6,138	4,354
Maine	18	3.00	18	7.20	18	16.08	18	17.35	American	Isthmian S. S. Lines	402.0	54.0	26.5	New York, N. Y.	Los Angeles, Calif.	Steel, general	7,568	6,936	5,024
Willanglo	18	3.25	18	8.07	18	17.05	18	22.30	American	Williams S. S. Line	409.5	54.3	22.6	Norfolk, Va.	Seattle, Wash.	General	7,700	6,510	4,827
Havre Maru	18	4.55	18	8.25	18	17.55	18	19.18	Japanese	Osaka Shosen Kaisha	407.0	51.0	25.9	New York, N. Y.	Moji, Japan	General	6,731	6,539	4,773
Los Angeles [2]	17	16.37	18	10.00	18	18.25	18	22.30	German	Hamburg-American Line	432.3	59.4	22.3	Hamburg, Germany	Vancouver, B. C.	Bananas, general	5,598	8,454	6,344
Pipiriki	18	10.25	18	11.40	18	18.45	18	23.00	British	Norton, Lilly & Co.	472.5	59.0	24.6	Barry, England	Adelaide, Australia	General	5,759	8,710	6,216
J. R. Gordon	18	14.10	18	14.20	18	21.04	18	22.30	American	Freeport Sulphur Co.	409.8	54.2	24.7	Freeport, Texas	Los Angeles, Calif.	Sulphur	7,213	6,581	4,784
Nebraskan	18	14.18	18	14.35	18	21.58	18	23.05	American	Amer.-Hawaiian Line	471.0	60.0	19.7	Boston, Mass.	Seattle, Wash.	General	2,951	9,032	6,655
Sciota [4]			18	8.15	18	17.39			American	U. S. Navy	149.3	30.0		Cristobal, C. Z.	Balboa, C. Z.	([7])			
Tut [5]			18		18	12.01			American	J. J. Burton				Cristobal, C. Z.	Gatun, C. Z.	Ballast		1	1
Lochgoil [2]	17	15.23	19	6.14	19	13.10	19	15.00	British	Royal Mail S. P. Co.	485.0	62.3	21.0	Rotterdam, Holland	Vancouver, B. C.	Bananas, general	2,604½	10,803	7,606
Silverash [2]	18	19.10	19	6.20	19	13.17	19	15.00	British	Silver Line, Ltd.	426.0	58.3	24.0	New York, N. Y.	Singapore, Str. Set.	General	4,880	8,219	5,861
Garfield	18	19.15	19	7.05	19	15.17	19	16.30	American	N. O. & S. A. S. S. Line	299.4	45.0	22.0	New Orleans, La.	Talcahuano, Chile	General	1,827	3,256	2,010

[1] Tanker. [2] Motor ship. [3] Transport. [4] Tug. [5] Launch. [6] Case oil, cotton, wax, and general. [7] Towing barge.

Peter Kerr	18	20.40	19	7.15	19	14.17	19	15.10	American	Arrow Line	415.0	55.6	20.0	Baltimore, Md.	Portland, Oreg.	General	4,460	7,704	5,707
Papoose [1]	18	23.15	19	7.30	19	16.00	19	17.15	American	Petroleum Nav. Co	412.0	53.2	17.0	New York, N. Y.	Los Angeles, Calif.	Ballast		6,285	4,370
West Montop	19	00.45	19	8.15	19	16.42	19	17.45	American	Calif. & East'n S.S. Co.	410.0	54.6	18.0	New York, N. Y.	Seattle, Wash.	General	3,163	6,484	4,675
Robert Luckenbach	19	6.00	19	9.05	19	17.32	19	18.35	American	Luckenbach Line	445.0	58.0	21.0	Boston, Mass.	Portland, Oreg.	General	4,425	8,695	6,375
Teno	18	20.45	19	9.40	19	18.26	19	19.35	Chilean	South American Line	421.8	56.0	25.0	Brooklyn, N. Y.	Valparaiso, Chile	General	2,529	7,764	4,672
Valdirosa	19	8.45	19	10.05	19	19.03	19	20.50	Italian	Soc. Italiana de Nav.	385.0	52.0	13.0	Rotterdam, Holland	Arica, Chile	Ballast		5,363	4,149
Ditmar Koel	19	00.10	19	10.55	19	19.30	19	22.05	German	G. J. H. Siemers & Co	400.0	53.0	24.0	Houston, Texas	Kobe, Japan	General	5,583	5,785	4,055
Javanese Prince [2]	19	9.05	19	11.12	19	19.52	19	21.00	British	Furness, Withy & Co.	441.6	60.0	24.0	New York, N. Y.	Manila, Philippines	General	5,783	9,240	6,145
Canadian Scottish	19	4.55	19	11.50	19	20.12	19	21.47	British	Can. Nat. Steamships	399.8	52.2	23.6	Montreal, Canada	Adelaide, Australia	General	2,211	5,905	4,129
Tilthorn	19	10.30	19	12.30	19	20.40	19	22.05	Norwegian	O. G. & T. H. Olsen	420.0	53.0	15.0	Newport News, Va.	Arica, Chile	Ballast		6,591	4,730
Glamorganshire	18	15.50	19	12.55	19	21.10	19	22.05	British	Royal Mail S. P. Co.	445.0	58.0	21.4	Antwerp, Belgium	Vancouver, B. C.	General	2,055	8,229	5,982
Fernhill [2]	19	10.50	19	13.35	19	21.35	19	23.15	Norwegian	Fearnley & Eger	377.6	54.0	21.11	Galveston, Texas	Yokohama, Japan	General	4,725	6,081	4,538
Clydefield [1 2]	19	11.45	19	14.10	19	22.15	20	1.58	British	Anglo-Saxon Pet. Co	420.0	57.6	20.0	River Tyne, Eng.	Los Angeles, Calif.	Ballast		7,132	4,658
Oreana	19	12.35	20	6.10	20	13.05	20	14.40	British	Pacific Steam Nav. Co.	511.0	62.0	28.0	Liverpool, England	Talcahuano, Chile	General	5,183	12,417	8,305
Kelsomoor	19	14.35	20	6.30	20	14.15	20	17.30	British	Moor Line	330.0	47.0	21.0	Swansea, England	Acajutla, Salvador	Patent fuel	5,985	3,551	2,551
Warlady	19	16.18	20	7.25	20	14.20	20	15.50	British	Sir. R. Ropner & Co	390.0	55.0	14.0	No. Shields, Eng.	Vancouver, B. C.	Ballast		5,908	4,257
Adra	19	17.10	20	7.40	20	15.08	20	16.05	British	C. T. Bowring & Co.	385.0	53.0	17.0	Tyne, England	Vancouver, B. C.	Ballast		5,283	3,723
Seekonk [2]	20	2.10	20	8.30	20	15.32	20	16.45	American	Quaker Line	390.0	54.0	20.0	Wilmington, Del.	Seattle, Wash.	General	4,275	6,162	4,417
Nordbo [2]	20	5.25	20	9.45	20	16.37	20	17.40	Danish	Isbrandtsen & Moller	380.0	53.6	24.0	Savannah, Ga.	Yokohama, Japan	General	7,500	6,190	4,569
Pacific President [2]	19	14.55	20	11.05	20	17.11	20	18.10	British	Furness Withy & Co	450.0	60.6	20.9	Glasgow-England	Portland, Oreg.	Bananas, general	1,649	10,086	7,226
Northmoor [2]	20	6.35	20	11.33	20	17.55	20	22.12	British	Moor Line, Ltd	375.0	52.6	14.0	Newcastle, England	Vancouver, B. C.	Ballast		6,051	4,612
Cragpool	20	7.15	20	12.05	20	18.28	20	22.45	British	Sir. R. Ropner & Co	419.0	54.0	15.0	Tyne, England	Portland, Oreg.	Ballast		6.170	4,505
El Ciervo [1]	20	9.20	20	12.40	20	19.30	21	00.50	British	Anglo-Saxon Pet. Co.	407.4	52.2	19.0	Rouen, France	Los Angeles, Calif.	Ballast		6,046	4,326
Legazpi	19	00.30	20	13.30	20	20.02	20	21.30	Spanish	Spanish Line	375.6	47.0	20.6	Barcelona, Spain	Valparaiso, Chile	General	232	4,506	2,827
Reedpool	20	12.22	20	13.30	20	20.50	20	23.15	British	Sir. R. Ropner & Co	390.0	55.0	13.6	Hartlepool, Eng.	Vancouver, B. C.	Ballast		5,890	4,199
Manizales	12	19.40	20	13.55	20	21.10	20	22.12	German	North German Lloyd	216.5	33.0	14.6	Cristobal, C. Z.	Guayaquil, Ecuador	General	427	1,132	741
Point Gorda	20	20.10	20	20.35	21	9.45	21	11.39	American	Swayne & Hoyt	324.0	46.0	23.0	Tampa, Fla.	Vancouver, B. C.	Phosphates, gen	3,256	3,984	2,643
W. S. Rheem [1]	20	22.00	21	6.25	21	13.25	21	19.20	American	Standard Oil Co	500.0	68.0	18.0	London, England	Los Angeles, Calif.	Ballast		11,224	7,895
Trekieve	20	23.00	21	6.38	21	14.12	21	15.10	British	Amer.-Australian Line	400.0	52.4	19.0	New York, N. Y.	Dunedin, N. Z.	General	2,115	5,766	4,083
Nuolja [2]	20	23.20	21	7.40	21	14.28	21	18.55	Swedish	Grangesberg & Co	418.0	55.7	15.0	Rotterdam, Holland	Vancouver, B. C.	Ballast		7,265	5,199
West Nilus	21	2.10	21	10.00	21	16.29	21	17.35	American	McCormick S. S. Co.	410.5	54.3	19.0	Buenos Aires, Arg.	Vancouver, B. C.	General	2,508	6,581	4,989
Caldas [2]	14	16.45	21	10.10	21	18.10	21	22.05	Panaman	National Navigation Co.	116.0	21.0	9.2	Cristobal, C. Z.	Buenaventura, Col.	General	321	211	124
Adolf Von Baeyer	20	3.50	21	10.50	21	17.45	22	16.22	German	Hamburg-American Line	409.9	53.0	23.5	Hamburg, Germany	Valparaiso, Chile	General	4,921	7,173	5,514
Swan			21	6.40	21	15.18			American	U. S. Navy	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.	[10]			
Quarrington Court	21	13.28	21	14.45	22	9.57	22	11.13	British	Court Line, Ltd.	420.0	56.0	16.0	Tyne, England	Vancouver, B. C.	Ballast		6,907	4,955
Van	22	00.50	22	6.35	22	13.20	22	14.30	Belgian	Cie. Int. de Com. de Arm.	460.4	58.2	19.0	Barry, England	Arica, Chile	Ballast		9,068	6,211
Carina [9]	12	11.05	22	6.35	22	15.45			American	John Masury	123.0	25.0	15.0	Kingston, Jamaica	San Diego, Calif.	Ballast		163	129
Ida	22	2.30	22	9.25	22	16.55	22	19.15	Norwegian	Scand.-So. Pacific Co.	267.0	42.2	18.0	Christiana, Norway	Antofagasta, Chile	General	2,400		
Myrtlebank [2]	22	20.00	22	20.15	23	10.04	23	13.05	British	Bank Line	420.0	53.9	25.4	Tampa, Fla.	Kobe, Japan	[11]	6,500		
M. D. [5]			22	10.25	22	16.46			American	J. H. Mhoon				Cristobal, C. Z.	Balboa, C. Z.	Ballast		15	15

[1] Tanker. [8] Mine sweeper. [9] Yacht. [10] Towing barge. [11] Phosphates and cotton.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Seattle [12]	15	17 15	16	6 18	16	14 15	16	15 45	German	Hamburg-American Line	461 5	62 0	26 0	Vancouver, B. C	Hamburg, Germany	General	7,909	9,267	6,834
Lena Luckenbach	7	9 00	16	7 21	16	18 15	22	16 40	American	Luckenbach Line	425 0	53 8	23 0	Seattle, Wash	New Orleans, La	General	5,382	7,217	5,295
San Cbaldo [1]	15	23 09	16	8 10	16	15 30	16	15 30	British	Anglo-Mexican Pet. Co.	412 0	53 4	25 0	Los Angeles, Calif	Lizard Head, Eng.	Gasoline	7,174	5,976	4,069
Margaret Johnson [12]	16	1 30	16	8 40	16	16 15	16	20 50	Swedish	Johnson Line	497 0	54 0	25 9	Vancouver, B. C.	Stockholm, Sweden	General	5,750	7,048	5,337
Lobos [12]	16	2 00	16	9 09	16	18 10	16	21 20	British	Pacific Steam Nav. Co	404 7	54 2	26 9	Corral, Chile	Hull, England	General	8,357	7,151	4,756
Sutherland	16	6 30	16	9 25	16	18 40	16	18 40	American	Charles Nelson & Co.	380 0	53 2	23 0	Port Angeles, Wash	Baltimore, Md	Lumber, general	5,853	5,654	4,123
Cedar Branch	16	9 00	16	9 45	16	19 00	16	20 05	British	F. & W. Ritson	390 0	51 0	22 6	Valparaiso, Chile	Liverpool, England	General	5,267	4,927	3,597
Victorious	15	8 30	16	13 04	16	21 55	17	12 40	American	American-Pioneer Line	440 1	56 0	26 0	Shanghai, China	New York, N. Y	General	8,853	8,328	6,036
Paraguay	16	13 30	16	14 05	16	23 20	19	17 25	German	Hamburg-American Line	401 0	52 6	22 0	Corral, Chile	Antwerp, Belgium	General	6,647	5,279	4,034
Canadian Importer	16	13 48	16	14 31	16	23 45	17	3 40	British	Can. Nat. Steamships	400 0	53 0	24 3	Vancouver, B. C.	Halifax, N. S.	Lumber, general	6,500	5,891	4,186
San Salvador [1]	16	22 30	17	6 21	17	13 45	17	13 45	British	Anglo-Mexican Pet. Co.	407 4	52 0	27 0	Los Angeles, Calif	Lizard Head, Eng.	Gasoline	7,359	6,157	4,137
Yankee Arrow [1]	16	22 15	17	6 58	17	14 50	17	14 50	American	Standard Transp. Co.	468 3	62 7	28 0	Los Angeles, Calif	Providence, R. I.	Gasoline	11,319	9,841	6,946
Rimutaka	16	22 30	17	7 16	17	14 40	17	23 05	British	N. Z. Shipping Co	457 0	68 2	23 6	Dunedin, N. Z.	London, England	Frozen, general	4,757	9,201	6,961
Port Darwin	16	18 29	17	7 31	17	15 50	17	19 40	British	Com'lth & Dom. Line	480 4	60 5	25 0	Lyttleton, N. Z.	London, England	Frozen, general	6,230	10,468	7,916
Pacific Fir	16	21 20	17	8 06	17	16 05	17	16 05	American	Dimon S. S. Corp	419 5	54 0	25 1	Seattle, Wash	Baltimore, Md	Lumber	8,145	6,622	4,882
Ipswich	16	19 52	17	8 39	17	16 40	17	16 40	American	Argonaut S. S. Line	400 7	54 2	25 0	Tacoma, Wash	Baltimore, Md	Lumber, general	6,892	6,616	4,614
Buchaness	16	21 30	17	9 16	17	18 00	17	18 00	British	Sir W. R. Smith & Sons	401 6	54 3	25 0	Portland, Oreg	Valencia, Spain	Wheat	7,700	6,656	4,954
Santa Elisa	17	7 00	17	9 59	17	18 30	17	21 05	American	Grace Line	360 3	51 7	25 1	Talcahuano, Chile	New York, N. Y.	General	3,920	5,957	4,235
Arana	17	7 00	17	10 08	17	19 25	18	8 15	British	Pacific Steam Nav. Co	303 0	43 0	12 2	Callao, Peru	New York, N. Y.	[11]	284	2,851	1,776
Sciota [13]			17	10 08	17	18 10			American	U. S. Navy	155 0	30 0		Balboa, C. Z	Cristobal, C. Z	[18]			
Paul Shoup [1]	17	7 30	17	10 23	17	19 33	17	19 33	American	Associated Oil Co	424 4	58 2	26 0	San Francisco, Cal.	Philadelphia, Pa.	Gasoline	8,253	7,333	5,182
West Keats	17	12 40	17	13 25	17	20 55	17	20 55	American	Calif. & Eastern S. S. Co.	419 5	54 3	24 0	Seattle, Wash	Philadelphia, Pa.	Lumber	6,300	5,572	4,900
Birk	17	14 30	17	15 09	17	22 20	18	2 05	Norwegian	Moore & McCormack	359 8	52 1	24 0	Caleta Colosa, Chile	Pensacola, Fla	Nitrates	7,000	4,751	3,160
Svealand [12]	17	15 42	17	17 38	18	13 20	18	13 20	Swedish	Ore S. S. Corp	561 1	72 2	34 0	Cruz Grande, Chile	Baltimore, Md	Iron ore	21,506	15,425	4,421
California	17	11 45	18	6 19	18	13 55	18	14 45	American	Panama-Pacific Line	574 4	80 3	30 6	San Francisco, Cal.	New York, N. Y	General	6,700	24,506	17,565
Lightburne [1]	17	15 50	18	6 35	18	14 57	18	15 40	American	The Texas Co	416 8	56 1	26 0	Los Angeles, Calif	New York, N. Y.	Gasoline	8,227	6,876	5,072
Glittre [12]	17	19 50	18	7 24	18	16 15	18	16 15	Norwegian	Fearnley & Eger	408 3	55 1	25 7	Los Angeles, Calif	Hamburg, Germany	Gasoline	8,819	6,522	4,389
Leon XIII	17	15 00	18	7 45	18	15 35	19	21 25	Spanish	Spanish Line	410 4	46 5	22 9	Talcahuano, Chile	Barcelona, Spain	General	1,559	5,521	3,729
Zacharias	17	16 20	18	8 13	18	19 50	18	19 50	Greek	G. Lykiardopulos	400 0	50 0	26 3	Antofagasta, Chile	Azores [16]	Nitrates	7,006	6,006	4,287
Paul Luckenbach	18	6 40	18	9 07	18	18 25	18	18 25	American	Luckenbach Line	471 0	59 2	26 3	Portland, Oreg	Boston, Mass	Lumber, general	8,353	9,027	6,539
Moveria [1] [14]	18	3 25	18	10 12	18	18 50	18	18 50	British	Donaldson Line	385 2	52 4	25 6	Vancouver, B. C.	Glasgow, Scotland	Fruit, general	5,577	6,576	4,724
Litiopa [1]	18	10 39	18	11 28	18	19 40	18	19 40	Norwegian	Anglo-Saxon Pet. Co.	400 0	52 4	25 6	San Francisco, Cal.	Curacao, D. W. I.	Stove oil	6,937	5,524	3,612
Rigi	17	20 10	18	11 37	18	20 00	19	1 05	Norwegian	Camilo Eitizen & Co	400 0	53 0	22 0	Vancouver, B. C.	Liverpool, England	General	6,547	6,392	46,06
Comeric	18	11 20	18	12 08	18	21 25	19	5 50	British	Andrew Weir & Co	410 7	55 5	28 5	Vancouver, B. C.	London, England	Grain, general	9,753	7,186	5,335
Martha [2]	18	12 40	18	13 22	18	22 15			Norwegian	Chr. Hannevig	183 2	30 1	13 0	Buenaventura, Col.	Cristobal, C. Z	Coffee, hides	890	780	504

[1] Tanker. [12] Motor ship. [13] Tug. [14] Cocoa, coffee, wood, and hides. [15] Towing barge. [16] For orders.

Pacific																			
Reliance [12]	18	11.00	18	14.37	18	23.05	18	23.05	British	Furness, Withy & Co.	435.1	60.2	27.1	Vancouver, B. C.	Glasgow, Scotland	General	8,032	9,644	6,967
Carperby	18	17.15	19	6.31	19	17.45	19	18.30	British	Sir R. Ropner & Co.	405.0	53.6	24.0	Prince Rupert, B.C.	London, England	Wheat	7,800	5,875	4,269
Rockpool	18	20.40	19	7.15	19	18.00	19	22.00	British	Sir R. Ropner & Co.	405.0	53.5	24.0	Prince Rupert, B.C.	Hull, England	Wheat	7,737	5,869	4,271
Maliko	18	21.45	19	7.34	19	18.33	19	18.33	American	Matson Line	415.0	53.7	29.6	Portland, Oreg.	Boston, Mass.	General	6,591	7,072	4,944
East Indian [12]	18	22.40	19	8.07	19	19.00	19	19.00	American	Ford Motor Co.	445.0	58.0	27.6	Vancouver, B. C.	Boston, Mass.	Lumber	8,700	8,787	6,275
Bullmouth [1 12]	19	00.30	19	10.15	19	19.35	19	19.35	British	Anglo-Saxon Pet. Co.	440.0	59 0	26.2	Los Angeles, Calif.	Land's End, Eng.	Gasoline	8,989	8,057	5,047
Scottish Minstrel [1 12]	19	11.45	19	12.15	19	20.10	19	22.35	British	British Tankers, Ltd.	425.3	57.0	29.2	Buenos Aires, Arg.	Curacao, D. W. I.	Ballast		7,123	4,962
Baralt	19	12.40	19	13.39	19	21.40	24	6.00	Dutch.	Royal Neth. S. S. Co.	202 9	33 1	15.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	580	1,183	742
Lechkatrine [12]	19	12.45	19	13.59	19	22.30	20	1.25	British	Royal Mail S. P. Co.	485 0	62.0	29.0	Vancouver, B. C.	Rotterdam, Holland	Wheat, general.	9,260	10,802	7,595
Hampton Roads [1]	19	13.55	19	14.44	20	11.35	20	11.35	American	Oil Transport Co.	431.0	59 2	26.6	La Libertad, Ecad'r	Philadelphia, Pa.	Crude oil	10,086	8,093	5,347
Susquehanna	19	15.50	19	16.40	20	12.50	20	14.55	American	Transmarine Lines	324.0	46.2	23.0	Everett, Wash.	New York, N. Y.	Lumber	4,200	3,984	2,612
O-7 [17]			20	6.30	20	17.30			American	U. S. Navy	175.0	16.4		Balboa, C. Z.	Cristobal, C. Z.				
O-8 [17]			20	6.30	20	17.30			American	U. S. Navy	175 0	16.4		Balboa, C. Z.	Cristobal, C. Z.				
O-9 [17]			20	6.25	20	17.30			American	U. S. Navy	175.0	16.4		Balboa, C. Z.	Cristobal, C. Z.				
O-10 [17]			20	6.25	20	17.30			American	U. S. Navy	175.0	16.4		Balboa, C. Z.	Cristobal, C. Z.				
Bagaduce [18]			20	7.06	20	17.30			American	U. S. Navy				Balboa, C. Z.	Cristobal, C. Z.				
S-16 [17]			20	6.17	20	17.30			American	U. S. Navy	231.0	22.0		Balboa, C. Z.	Cristobal, C. Z.				
Motor Sailor [19]			20	7.06	20	17.30			American	U. S. Navy				Balboa, C. Z.	Cristobal, C. Z.				
West Lynn [12]	19	21.00	20	7.49	20	18.00	20	18.00	British	Sir W. R. Smith & Sons.	400.0	54.2	27.6	Vancouver, B. C.	London, England	General	7,939	6,752	5,161
Edward Luckenbach	20	8.15	20	9.05	20	18.40	20	24.40	American	Luckenbach Line	436 6	57.2	22.0	Seattle, Wash.	New Orleans, La.	General	5,884	8,543	6,427
San Mateo	20	16.50	21	17.20	21	10.38	21	23.57	American	United Fruit Co.	315 2	44.2	19 0	San Francisco, Cal.	Port Limon, C. R.	General, case oil.	413¼	3,496	2,141
Lautaro [12]	20	19.40	21	6.42	21	13.55	21	15.10	British	Pacific Steam Nav. Co.	399 1	52 2	28 7	Corral, Chile	Glasgow, Scotland	Nitrates, general.	8,435	6,759	4,841
Pardo	20	17.51	21	6.51	21	14.25	22	9.40	British	Royal Mail S. P. Co.	375 0	48 3	21.0	Seattle, Wash.	Hamburg, Germany	General	2,407	4,906	3,565
Charles H. Cramp	21	2.09	21	7.15	21	14.55	21	15.35	American	Argonaut S. S. Co.	404.6	53.9	26 0	Seattle, Wash.	Baltimore, Md.	Lumber, general.	6,244	6,755	4,750
Mataroa	21	9.00	21	9.37	21	16.54	21	23.25	British	Shaw, Savill & Albion.	500 0	63 2	27.4	Wellington, N. Z.	London, England	Frozen, general.	6,050	13,590	9,233
Santa Eulalia	21	9.20	21	10.14	21	18.25	22	12.25	American	Amer. & Cuban S. S. Co.	251 0	43 6	23.0	Hoquiam, Wash.	Providence, R. I.	Lumber	2,500	2,823	1,730
Corinto	20	10.41	21	10.03	21	18.20	25	8.55	American	Panama Mail S. S. Co.	261 1	40 0	18.0	San Francisco, Cal.	Cristobal, C. Z.	General	692	2,352	1,549
Tarakina	21	9.50	21	10.59	21	19.00	21	22.55	British	N. Z. Shipping Co.	469 0	62 7	24.4	Auckland, N. Z.	Liverpool, England	Frozen, general.	7,445	10,618	7,306
Ashworth	21	16.20	21	17.21	22	11.15	22	12.28	British	R. S. Dalgliesh & Co.	400.0	52.3	25.0	Iquique, Chile.	Azores [16]	Nitrates	7,500	5,732	3,991
Atlantic Sun [1]	21	17.00	22	6.05	22	13.35	22	13.35	American	Sun Oil Co.	429 3	59 2	26.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,050	7,568	5,283
Knosis	21	18.45	22	7.17	22	15.19	22	15.18	Greek	Rethymnis & Kuluk'dis	360 0	48.0	26.0	Iquique, Chile.	Gibraltar [16]	Nitrates	7,000	4,711	3,378
Chickasaw City	21	21.00	22	7.25	22	14.45	22	14.45	American	Isthmian S. S. Lines	411 6	55 0	27.0	Vancouver, B. C.	Avonmouth, Eng.	Grain, general.	7,938	7,322	5,237
Yone Maru	21	22.10	22	8.12	22	15.47	22	17.15	Japanese.	Kokusai Kisen Kaisha.	425.0	53.6	26.9	Vancouver, B. C.	Lisbon, Portugal	Wheat	9,125	6,823	5,186
Trontolite [1 12]	22	6.00	22	8.29	22	17.00	22	17.00	British	Imperial Oil Co., Ltd.	420 8	57 0	26 3	Lobitas, Peru	Halifax, N. S.	Crude oil	8,979	7,226	4,669
Point Montara	22	7.00	22	8.51	22	17.20	22	20.20	American	Swayne & Hoyt	324.0	46 2	23 3	Portland, Oreg.	New Orleans, La.	Lumber, general.	3,330	3,984	2,612
Chatham	22	7.30	22	9.34	22	17.45	23	6.05	British	Watts, Watts & Co.	341 0	46 7	29 0	Vladivostok, Russia	London, England	Lumber	3,700	3,986	2,688
Kenowis [20]	20	10.30	22	10.11	22	18.10			American	U. S. Army	399.0	54.2	18.0	San Francisco, Cal.	New York, N. Y.	Army supplies.	526		
Swan [17]	21	15.18	22	10.12	22	18.40			American	U. S. Navy	188 0	32.0		Balboa, C. Z.	Cristobal, C. Z.	([15])			
Mexican	22	11.55	22	12.32	22	19.10	22	19.10	American	Amer.-Hawaiian Line.	472.0	57.0	29.3	Tacoma, Wash.	Boston, Mass.	General	9,812	9,258	6,944

[1] Tanker. [17] Submarine. [18] Submarine tender. [19] Launch. [20] U. S. Army transport.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
December 16..	Pastores	United Fruit Co	Port Limon, Costa Rica.
December 16..	Killerig [21]	Merritt, Chapman & Lindsay	San Juan, Port Rico.
December 17..	Ulua	United Fruit Co	New York via Habana.
December 17..	Maravi	United Fruit Co	New York, N. Y.
December 17..	Linda S. [22]	Surgeon Brothers	Colon, R. P.
December 18..	Wanks	Standard Fruit & S. S. Co	Perme, R. P.
December 18..	Camito	Elders & Fyffes, Ltd	Avonmouth via wayports.
December 18..	All America [23]	All America Cables	Galveston, Texas.
December 19..	Gatun	Standard Fruit & S. S. Co	New Orleans, La.
December 19..	Cristobal	Panama Railroad S. S. Line	New York via Haiti.
December 19..	Zacapa	United Fruit Co	New York via wayports.
December 19..	Saramacca	United Fruit Co	New Orleans, La.
December 19..	Sangro	Nav. Gen. Italiana	Curacao, D. W. I.
December 19..	Galicia	Hamburg-American Line	Hamburg and wayports.
December 20..	Anachucuna [24]	United Fruit Co	Colon, R. P.
December 21..	Suriname	United Fruit Co	Bocas del Toro, R. P.
December 21..	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
December 21..	William M. [25]	G. I. Bryan	Colon, R. P.
December 21..	R. W. Wilmot [22]	W. Bisso	New Orleans, La.
December 21..	Barranca [22]	W. Bisso	New Orleans, La.
December 22..	Parismina	United Fruit Co	New Orelans via Habana.
December 22..	Denver [26]	U. S. Navy	Puerto Cabeza, Nicaragua.
December 22...	Mercian	Leyland Line	Palo Alto.

* DEPARTURES.

Date.	Vessel.	Line.	For—
December 16.	Managui	United Fruit Co	New York via Kingston.
December 16.	Pastores	United Fruit Co	New York and Habana.
December 17.	Cartago	United Fruit Co	New Orleans and wayports.
December 17.	Nordhav	Anglo-Saxon Petroleum Co.	Curacao, D. W. I.
December 17.	Linda S. [22]	Surgeon Brothers	Bluefields, Nicaragua.
December 18.	Impco [22]	Colon Import & Export Co	Colon, R. P.
December 18.	Antillian	Leyland Line	Puerto Colombia.
December 19.	Camito	Elders & Fyffes, Ltd	Santa Marta, Colombia.
December 19.	Ulua	United Fruit Co	Port Limon, Costa Rica.
December 19.	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
December 19..	Killerig [21]	Merritt, Chapman, & Lindsay	Kingston, Jamaica.
December 19..	Maravi	United Fruit Co	Cartagena and Puerto Colombia.
December 20..	Zacapa	United Fruit Co	New York via wayports.
December 20..	Saramacca	United Fruit Co	Port Limon and Bocas del Toro.
December 20..	Galicia	Hamburg-American Line	Port Limon, Costa Rica.
December 20.	Anachucuna [24]	United Fruit Co	Colon, R. P.
December 21.	Gatun	Standard Fruit & S. S. Co	New Orleans and wayports.
December 21..	Suriname	United Fruit Co	New Orleans, La.
December 21..	William M. [25]	G. I. Bryan	Bluefields, Nicaragua.
December 22.	R. W. Wilmot [22]	W. Bisso	New Orleans, La.
December 22.	Barranca [22]	W. Bisso	New Orleans, La.

[21] Tug. [22] Motor schooner. [23] Cable ship. [24] Motor boat. [25] Schooner. [26] Cruiser.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
December 17...	Cathwood	Union Oil Co. of California	Los Angeles, Calif.
December 18..	San Luis [27]	Chiriqui Land Co	Panama Bay, R. P.
December 20..	El Colon [27]	H. Elliot	Sambu River, R. P.
December 20..	Big Bill [27]	H. Elliot	Sambu River, R. P.
December 20..	A. B. de Obarrio [27]	Pacific Fruit Co	Bayano River, R. P.
December 20..	Dos Hermanos [27]	A. Valdez	Bayano River, R. P.

Date.	Vessel.	Line.	For—
December 16.	Nora	Grace Line	Los Angeles, Calif.
December 19.	Cathwood	Union Oil Co. of California	Los Angeles, Calif.
December 20..	San Luis [27]	Chiriqui Land Co	Puerto Armuelles, R. P.
December 20.	El Colon	H. Elliot	Panama Bay, R. P.
December 20.	A. B. de Obarrio [27]	Pacific Fruit Co	Bayano River, R. P.
December 20.	Dos Hermanos [27]	A. Valdez	Bayano River, R. P.

[27] Motor schooner

* Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending December 15, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
San Pablo	United Fruit Co		December 2		2,894
Toloa	United Fruit Co	December 2	December 2	32	975
Parismina	United Fruit Co		December 3		43
Arkansas	French Line	December 3	December 4	293	18
Wanks	Standard Fruit & S. S. Co		December 4		4
Cerigo	Hamburg-American Line	December 3		730	
Calamares	United Fruit Co	December 3	December 5	1,042	126
Mercian	Leyland Line	December 3	December 5	1,764	(2)
Wm. M	R. Feuillebois	December 4	December 4	(1)	28
K. R. Kingsbury	Standard Oil Co	December 4	December 4	1,428	(2)
Guayaquil	Panama Railroad S. S. Line	December 4	December 6	182	(2)
Utacarbon	Union Oil Co	December 4	December 7	9,467	(2)
Cali	North German Lloyd		December 5		290
Jamaica	Pacific Steam Navigation Co		December 5		776
Van Rensselaer	Royal Netherlands S. S. Co	December 5	December 5	74	(2)
Coppename	United Fruit Co	December 5	December 6	729	169
Metapan	United Fruit Co	December 5	December 6	425	429
Ancon	Panama R. R. S. S. Line	December 5		4,757	
Gatun	Standard Fruit & S. S. Co	December 5	December 7	319	751
Banan	United Fruit Co	December 5	December 7	(2)	232
Mississippi	French Line	December 5	December 7	312	538
Axel Johnson	Johnson Line	December 5	December 6	225	(2)
Hidlefjord	C. Olsen	December 5	December 8	11,014	(2)
La Perla	United Fruit Co	December 6	December 6	(1)	444
San Jose	United Fruit Co	December 6	December 7	971	2
Perene	Peruvian Line	December 6	December 7	130	78
Cuba	Hamburg-American Line	December 6	December 7	(1)	621
Oroya	Pacific Steam Navigation Co	December 6	December 7	161	217
Ebro	Pacific Steam Navigation Co	December 6	December 7	35	(2)
Pacific Trader	Furness, Withy & Co	December 6	December 8	10	400
Atrato	Colombian Transport Co	December 7		117	
Argun Maru	Osaka Shosen Kaisha	December 7	December 7	81	(2)
Arizona	French Line	December 7	December 7	2	2
Leme	Nav. Libera-Triestina	December 7	December 7	147	84
Wanks	Standard Fruit & S. S. Co	December 7		75	
Boskoop	Royal Netherlands S. S. Co	December 7	December 7	162	46
Acajutla	Pacific Steam Navigation Co	December 7		259	
Canadian Victor	Canadian National Steamships	December 7	December 7	50	(2)
Saramacca	United Fruit Co	December 7	December 8	11	300
Nienburg	Hamburg-American Line	December 7	December 8	280	26
Van Rensselaer	Royal Netherlands S. S. Co	December 7	December 8	92	866
Radnorshire	Royal Mail S. P. Co	December 7	December 8	34	4
Heredia	United Fruit Co	December 8		391	
Buenaventura	Panama R. R. S. S. Line	December 8		282	
Linda S	R. Feuillebois	December 8	December 8	(1)	42
Cauca	National Navigation Co		December 8		407
Calamares	United Fruit Co	December 9	December 9	34	810
Ancon	Panama Railroad S. S. Line		December 10		2,757
Heredia	United Fruit Co		December 10		6
El Salvador	Panama Mail S. S. Co	December 9	December 10	586	302
Ucayali	Peruvian Line	December 9	December 11	1,986	(2)
Essequibo	Pacific Steam Navigation Co	December 10	December 10	61½	25
August Leonhardt	Colombian Transport Co	December 10	December 10	45	(2)
Salvador	Pacific Steam Navigation Co		December 11		1,077½
Orestes	Royal Netherlands S. S. Co	December 10	December 11	227	182
Idarwald	Hamburg-American Line	December 10	December 11	124	215
Perou	French Line	December 10	December 12	199	332
Pastores	United Fruit Co	December 10	December 13	1,150	22
Stella	Panama Mail S. S. Co	December 10	December 14	112	840
Moerdijk	Holland-American Line	December 11	December 11	2½	166
Ecuador	Panama Mail S. S. Co	December 11	December 12	279	478
Santa Cecelia	Grace Line	December 11	December 12	230	(2)
Oklahoma	French Line	December 11	December 12	211	333
Wanks	Standard Fruit Co		December 12		9
Cerigo	Hamburg-American Line		December 12		966
Knute Nelson	Fred Olsen & Co	December 12	December 12	375	(2)
Nitro	Societa Nazionale di Nav	December 12	December 12	39	(2)
Manizales	North German Lloyd	December 12		340	
Rimac	Peruvian Line	December 12	December 13	(1)	5
Sixaola	United Fruit Co	December 12	December 13	975	595
Alvarado	Pacific Steam Navigation Co	December 12	December 14	669	54½
Granada	Standard Fruit Co	December 12	December 14	311	607
La Paz	Pacific Steam Navigation Co	December 12	December 14	445	176
Antillian	Leyland Line	December 13		735	
Poljana	Winge & Co	December 13	December 13	(2)	7
Suriname	United Fruit Co	December 13	December 13	870	105
Albert Voegler	Hamburg-American Line	December 13	December 14	144	56
Ludwigshafen	North German Lloyd	December 13	December 14	70	138

[1] No cargo discharged.

[2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z.—Continued.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons*
Macabi	United Fruit Co	December 13..	December 14..	12	683
Tcayali	Peruvian Line	December 13..	December 14..	(1)	252
Limon	United Fruit Co	December 13..	December 15..	1,144	105
Tirso	Italian Line	December 13..	December 15..	194	(2)
Coppename	United Fruit Co	December 14..	December 14..	36	641
Nyanza	Wessel, Duval & Co	December 14..	December 15..	(1)	300
Teutonia	Hamburg-American Line	December 14..	December 15..	¾	340
Vermont	French Line	December 14..	December 15..	684	(2)
Caldas	National Navigation Co	December 14..		229	
Targis	North German Lloyd	December 14..		13	
Nordhav	Anglo-Saxon Petroleum Co	December 14.		7,600	
Wanks	Standard Fruit Co	December 14..	December 15..	70	(2)
Cartago	United Fruit Co	December 15..		619	
Phoenicia	Hamburg-American Line	December 15..	December 15..	4	(2)
Tongking	Danish East Asiatic Co	December 15..	December 15..	84	(2)
Managui	United Fruit Co	December 15..		342	
Oropesa	Pacific Steam Navigation Co	December 15..		162	

(1) No cargo discharged. (2) No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending December 15, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
El Salvador	Grace Line	December 10..	December 10..	9	
Ecuador	Panama Mail S. S. Co	December 10..	December 11..	195	
St. Mihiel	U. S. Army	December 10.	December 13.	100	10
U. S. Grant	U. S. Army	December 11.	December 12.	91	1,268
Orcades	Royal Netherlands S. S. Co	December 11.	December 12.	273	
Mojave	Standard Transportation Co	December 12.	December 13.	10,237	
Knute Nelson	Peter Olsen	December 12.	December 13.	1,470	
La Paz	Pacific Steam Navigation Co	December 14.	December 14.		50
Targis	North German Lloyd	December 14.	December 14.	150	
President Hayes	Dollar Line	December 14.	December 14.		52
Virginia	Panama-Pacific Line	December 14.	December 14.		168
Ludwigshafen	North German Lloyd	December 14.	December 15.	295	
Tongking	East Asiatic Co	December 15.	December 16.	152	
Stella	Alf Tekhelln	December 15.	December 15.		297
Nora	Grace Line	December 15.	December 16.	13,686	
Victorious	U. S. Shipping Board	December 15.	December 16.	364	

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Notaries Public in the Canal Zone.

The following is a list of notaries public commissioned in the Canal Zone as of November 23, 1928. The list gives, by towns, the name, where stationed, and the date of expiration of commission:

ANCON.

Bowen, Vollie S., Land Office, February 27, 1930.
Boyd, Oscar S., Municipal Division, July 30, 1931.
French, A. W., Gorgas Hospital, May 14, 1929.
Latimer, J. G., Ancon Laundry, April 30, 1930.
McGahhey, J. T., Clubhouse, August 12, 1930.
Ohlson, Elmer F., Gorgas Hospital, December 3, 1930.
Russell, C. V., Gorgas Hospital, April 29, 1930.
Shaeffer, L. E., Office J. O. Collins, April 6, 1929.
Sheibley, F. H., District Court, October 27, 1929.
Walker, J. J., District Court, November 22, 1931.

BALBOA.

Hyde, W. H., Port Captain's Office, March 6, 1930.
Kalar, J. D., Port Captain's Office, April 13, 1929.
Kelley, Thomas H., Mechanical Division, August 18, 1930.
Lefever, John E., Fort Amador, February 28, 1931.
Prager, J. F., Balboa storehouse, December 13, 1929.
Smith, Walter R., Balboa storehouse, September 4, 1931.
Stillwell, J. L., Fort Amador, April 20, 1931.

BALBOA HEIGHTS.

Attaway, E. F., Administration Building, room 343, October 28, 1930.
Boggs, W. B., Administration Building, room 316, August 4, 1931.
Buehler, G. H., Administration Building, room 205, August 17, 1931.
Fenton, John A., Administration Building, room 203, July 28, 1930.
Illwitzer, P. G., Administration Building, room 270, October 12, 1929.
Schecker, C. A., Administration Building, room 244, January 19, 1930.
Sims, Walter H., Quarry Heights, December 1, 1930.
Taylor, R. G., Administration Building, room 318, April 30, 1930.
Ungar, J., Administration Building, room 301, February 2, 1929.
Wang, Frank H., Administration Building, room 305, April 29, 1929.

COROZAL.

Grimm, G. L., Corozal Hospital, October 6, 1929.
Johnson, Mrs. Anna O., Panama Ordnance Depot, February 26, 1930.

CRISTOBAL.

Atwood, H. E., Commissary Division, April 8, 1930.
Campbell, J. S., District Court, January 28, 1929.
Clarke, V. J., Commissary Division, January 14, 1929.
Cotton, Charles, Coaling Plant, March 20, 1929.
Daly, E. J., United Fruit Co., May 26, 1929.
Flood, Arthur, Customs office, November 15, 1931.
Hargy, F. F., Port Captain's office, May 28, 1930.
MacSparran, E. S., Receiving & Forwarding Agency, December 1, 1930.
Murray, P. E., Magistrate, October 13, 1929.
Scarborough, W. W., clubhouse, January 21, 1930.
Slocum, E. L., Chase National Bank, August 10, 1929.
Walsh, M. H., Customs Office, August 5, 1929.
Ellis, Edward E., Coaling Plant, May 24, 1930.

GATUN.

P. L. Malone, Railroad Station, November 23, 1931.

PARAISO.

Holzapfel, A. F., Dredging Division, August 10, 1929.

PEDRO MIGUEL.

Norris, R. N., Municipal Division, August 11, 1930.
Rader, T. C., Pacific Locks, January 21, 1930.
Wright, A. M., Dredging Division, January 21, 1930.
Cauthers, R. A., Municipal Division, June 16, 1930.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., January 2, 1929. No. 22.

Traffic Through the Panama Canal in December, 1928, and Calendar Year 1928—New High Record for Monthly Tolls Collection.

During the month of December, 1928, 579 commercial vessels and 11 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,443,029.39, and on the launches $83.85, or a total tolls collection of $2,443,113.24.

The daily average number of transits for the month was 18.67, and the average tolls collection, $78,807.39. The average amount of tolls paid by each of the commercial transits was $4,219.39, as compared with $4,223.79, for the month of November, 1928.

The aggregate amount of tolls collected during the past month from commercial vessels, $2,443,029.39, establishes a new high record for tolls collection in one month, exceeding the previous record, made in December, 1927, by almost $45,000. The number of commercial transits, however, fell short by 10 of the record of 589 established in December, 1927.

During the calendar year ended December 31, 1928, a total of 6,334 commercial vessels, paying tolls aggregating $26,375,962.41, transited the Canal. The daily average number of transits for the year was 17.31, and the daily average tolls collection $72,065.46. In the number of commercial transits and the tolls collected, the year was second only to the fiscal year ended June 30, 1928, when 6,456 vessels transited, paying tolls of $26,944,499.77.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the calendar year 1928, with the daily averages of transits and tolls, with comparative totals for the calendar years 1927 and 1926, and the fiscal year ended June 30, 1928:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	540	$2,212,752.50	17.42	$71,379.20
February	547	2,253,755.37	18.86	77,715.70
March	542	2,223,370.57	17.48	71,721.63
April	531	2,187,607.82	17.70	72,914.55
May	508	2,118,969.83	16.38	68,353.86
June	481	2,016,211.09	16.03	67,206.43
July	509	2,109,083.19	16.41	68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
Totals, calendar year, 1928	6,334	26,375,962.41	17.31	72,065.46
Totals, calendar year 1927	6,085	26,231,022.94	16.67	71,865.82
Totals, calendar year 1926	5,420	23,901,540.04	14.84	65,483.67
Totals, fiscal year 1928	6,456	26,944,499.77	17.63	73,618.85

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, December 29, 1928.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Kafiristan	22	22 40	23	6 25	23	14 00	23	15 02	British	Can. Amer. Ship. Co	390 0	53 0	16 0	So. Shields, Eng	Vancouver, B. C.	Ballast		5,626	4,162
Hindustan	23	2 35	23	6 30	23	13 35	23	15 02	British	Hindustan S. S. Co	400 0	52 0	16 0	Sunderland, Eng.	Vancouver, B. C.	Ballast		5,826	4,154
Hans Leonhardt [2]	22	23 00	23	7 20	23	14 15	23	19 43	German	Colombian Mar. Co.	230 0	36 0	13 0	New York, N. Y.	Buenaventura, Col.	General	188	1,568	909
Levant Arrow [1]	23	3 30	23	7 45	23	14 36	23	15 55	American	Standard Oil Co	468 3	62 7	20 6	New York, N. Y.	Los Angeles, Calif	Ballast		9,841	6,985
Steel Engineer	23	5 00	23	8 20	23	15 05	23	21 53	American	Isthmian S. S. Lines	424 0	56 0	25 0	New York, N. Y.	Tjilatjap, Oceania	(4)	7,759	7,611	5,450
Panaman	23	6 15	23	8 25	23	15 30	23	17 00	American	Amer.-Hawaiian Line	407 7	53 7	24 3	New York, N. Y.	Portland, Oreg	General	3,580	7,098	5,065
West Cactus	23	8 50	23	9 35	23	16 41	23	20 38	American	McCormick S. S. Co	420 0	54 0	24 8	Santa Fe, Arg	San Francisco, Cal.	Sugar	8,000	6,625	5,047
Minden	22	11 30	23	9 50	23	17 17	23	18 45	German	North German Lloyd	360 0	51 0	21 10	Bremen, Germany	Champerico, Guat	General	3,907	4,822	3,272
Sander [1] [2]	23	6 50	23	10 45	23	17 30	23	21 55	Norwegian	Hahler Virik	451 9	59 2	17 0	Copenhagen, Den.	Los Angeles, Calif	Ballast		7,944	5,408
Sheafmount	23	10 10	23	10 58	23	18 22	23	19 40	British	Sheaf S. S. Co	420 0	54 0	23 0	Galveston, Texas	Yawata, Japan	General	6,486	6,555	5,012
Gracefield	23	10 58	23	12 05	23	19 24	23	23 25	British	Empire Shipping Co.	390 0	53 6	16 0	Barry, England	Vancouver, B. C.	Ballast		5,732	4,181
Hindpool	23	12 20	23	13 20	23	20 17	23	23 15	British	Sir. R. Ropner & Co	405 0	53 5	17 6	Oran, Algeria	Vancouver, B. C.	Ballast		5,878	4,281
Hadnot [1]	23	14 10	23	14 20	23	21 15	23	22 52	American	Cities Service Trans. Co.	416 9	56 2	19 0	New York, N. Y.	Los Angeles, Calif	Ballast		6,706	4,639
Edgar F. Luckenbach	23	19 45	23	20 15	24	11 13	24	12 15	American	Luckenbach Line	425 0	57 3	26 0	New Orleans, La	Tacoma, Wash	General	6,199	8,568	6,648
Sirius [1]	23	10 15	24	6 05	24	13 02	26	1 37	American	U. S. Navy	401 0	54 0	20 6	Boston, Mass	Bremerton, Wash.	General	3,527		
Baralt	19	21 40	24	6 00	24	13 11	24	14 15	Dutch	Royal Neth. S. S. Co.	390 0	53 0	19 2	Cristobal, C. Z	Buenaventura, Col.	General	155	1,183	742
Kastalia	23	13 45	24	6 10	24	13 46	24	15 00	British	Donaldson Line	385 0	52 0	13 6	Liverpool, England	Vancouver, B. C.	Bananas	424	5,530	3,417
Elmpark	23	23 00	24	7 30	24	13 58	24	15 00	British	J. & J. Denholm	409 0	53 0	15 0	Glasgow-England	Iquique, Chile	Ballast		6,565	4,728
Ullapool	24	3 00	24	7 30	24	14 45	24	18 55	British	Sir. R. Ropner & Son	418 0	53 5	15 0	Pto. Ferrajo, Italy	Vancouver, B. C.	Ballast		5,876	4,327
San Mateo	24	3 10	24	7 30	24	14 30	24	15 30	American	United Fruit Co	315 0	44 0	19 0	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	770	3,496	2,141
Mirrabooka [2]	24	00 15	24	8 30	24	15 37	24	18 55	Swedish	Trans. Pacific S. S. Co.	435 0	57 0	15 7	Bremen, Germany	Brisbane, Australia	Ballast		8,274	6,098
Steelmaker	24	15 15	24	15 20	24	22 00	25	3 20	American	Isthmian S. S. Lines	395 5	55 0	28 0	Baltimore, Md	Tacoma, Wash	Steel, general	8,755	7,330	5,245
Belgenland	25	5 45	25	6 15	25	14 09	25	23 55	British	Red Star Line	670 4	78 4	29 6	New York, N. Y.	Yokohama, Japan	Passengers only		28,913	18,874
Orazio [2]	24	4 55	25	6 18	25	15 08	25	22 05	Italian	Nav. Gen. Italiana	484 0	62 0	24 9	Genoa, Italy	Valparaiso, Chile	General	1,378	12,977	9,373
Corinthic	24	6 05	25	7 15	25	15 33	25	16 10	British	White Star Line	500 3	63 3	30 1	London, England	Wellington, N. Z.	General	5,650	12,821	9,507
Louqsor	24	6 40	25	7 15	25	15 56	25	16 50	French	Messageries Maritimes	447 3	58 0	25 6	Dunkirk, France	Noumea, N. Calid	General	2,675	7,487	5,162
Corinto	21	18 20	25	12 15	25	20 40	26	00 16	American	Panama Mail S. S. Co.	261 0	40 0	18 5	Cristobal, C. Z	San Francisco, Cal.	General	2,273	2,352	1,549
L. A. Christensen [2]	25	8 00	25	8 30	25	16 20	25	17 30	Norwegian	Fearnley & Eger	398 0	53 0	25 3	Tampa, Fla	Kobe, Japan	(5)	7,324	6,118	4,245
Yorkmar	24	20 00	25	9 55	25	17 11	25	18 55	American	Calmar S. S. Corp	409 8	54 2	26 10	Baltimore, Md	Seattle, Wash	Steel, general	8,896	6,757	4,919
Colombia	24	6 10	25	15 37	25	22 10	26	16 30	American	Panama Mail S. S. Co.	379 0	48 7	24 1	New York, N. Y.	San Francisco, Cal.	General, coffee	3,126	6,015	4,281
El Lobo [1]	25	15 42	25	18 00	26	8 55	26	10 27	British	Atlantic Refining Co	385 2	51 0	17 0	Philadelphia, Pa.	Lobitos, Peru	Ballast		4,851	3,326
Suriche	25	17 55	25	19 30	26	9 49	26	11 07	American	Grace Line	324 0	46 0	20 6	Philadelphia, Pa.	Valparaiso, Chile	Iron, dynamite	3,000	3,984	2,628
Kurdistan	25	14 50	26	6 20	26	13 00	26	14 10	British	Common Brothers	420 0	54 0	17 0	Newcastle-on-Tyne	Vancouver, B. C.	Ballast		6,298	4,576
W. L. Steed [1]	25	23 45	26	6 45	26	13 35	26	15 40	American	American Oil Co	416 8	56 1	21 0	New Orleans, La	Los Angeles, Calif	Ballast		6,751	4,795
Cornwall	26	00 05	26	7 30	26	15 26	27	3 55	British	Federal Steam Nav. Co.	495 0	63 1	28 6	Liverpool, England	Auckland, N. Z.	General	9,149	12,217	8,495

[1] Tanker. [2] Motor ship. [3] Auxiliary. [4] Steel and sulphate of ammonia. [5] Phosphates and cotton.

Witell	26	00.30	26	7.30	26	14.11	26	17.09	German	North German Lloyd	449.0	58.2	21.0	Hamburg,Germany	Vancouver, B. C.	General	3,249	7,816	5,755
Maltran	26	00.50	26	8.30	26	17.05	26	18.00	American	Mallory Transport Co.	334.0	48.0	22.0	Texas City, Texas	Dupont, Wash	Sulphur	5,097	4,171	2,827
Mundelta	26	6.35	26	8.30	26	16.03	26	17.40	American	Munson S. S. Line	370.0	53.2	23.0	Baltimore, Md	Tacoma, Wash	General, steel	6,100	5,668	4,297
Lewis Luckenbach	26	5.00	26	8.45	26	17.58	26	19.00	American	Luckenbach Line	496.0	68.2	22.0	Boston, Mass	Seattle, Wash	General	5,552	11,487	8,762
Erik Frisell [3]	26	5.20	26	9.35	26	18.10	26	19.22	Swedish	Canadian Transp. Co.	392.0	53.0	24.0	Antilla, Cuba	Shanghai, China	Sugar	6,767	5,766	4,084
Ohioan	26	7.00	26	10.40	26	18.55	26	20.05	American	Amer.-Hawaiian Line	407.7	53.7	20.8	Boston, Mass	Tacoma, Wash	General	3,657	7,103	4,991
Feltore	24	22.55	26	12.20	26	19.00	26	20.05	American	Ore S. S. Corp	449.0	57.0	18.2	Baltimore, Md	Cruz Grande, Chile	Ballast		7,808	5,139
Santa Cruz	26	5.20	26	13.12	26	20.10	26	22.00	American	Grace Line	384.0	50.0	19.1	New York, N. Y.	Antofagasta, Chile	General	3,153	5,534	3,868
Eastern Knight	26	16.33	26	16.45	27	8.56	27	10 21	American	Arrow Line	415.0	55.0	13.0	Baltimore, Md	Portland, Oreg	General	3,596	7,643	5,657
Alkmaar	25	8.20	27	6.36	27	14.02	27	15.10	Dutch	Royal Neth. S. S. Co.	447.0	62.9	23.0	Hamburg,Germany	Corral, Chile	General	5,043	9,505	6,644
City of Dalhart [3]	27	4.35	27	6.30	27	13.14	27	14.20	American	Roosevelt S. S. Co.	402.0	54.0	20.0	Philadelphia, Pa.	Adelaide, Australia	General	3,289	7,097	5,268
Santa Maria [3]	27	5.00	27	8.55	27	14.50	28	00.15	American	Grace Line	466.0	64.0	23.0	New York, N. Y.	Talcahuano, Chile	General	3,185		
Bianca [1 2]	27	8.50	27	9.05	27	16.11	27	19.50	Norwegian	Caucasian Oil Co	380.7	55.0	18.6	London, England	Los Angeles, Calif	Ballast		5,951	3,921
Taketoyo Maru	27	9.45	27	10.05	27	16.49	27	18.00	Japanese	Nippon Yusen Kaisha	445.0	58.0	26.1	Baltimore, Md	Kobe, Japan	General	8,316	7,972	5,687
Martha [3]	18	22 15	27	17.40	28	9.15	28	10.59	Norwegian	H. C. Stevenson	183.2	30.1	12.2	Cristobal, C. Z.	Buenaventura, Col.	General	650	780	504
Golden Gate	27	18.00	27	18.10	28	10.15	28	16.45	Norwegian	Scand.-So. Pacific Line	381.5	53.1	24.6	Norresundby, Nor	Corral, Chile	General	5,906	5,616	3,879
Waziristan	28	1.10	28	6.25	28	13.38	28	14.45	British	Common Brothers	390.0	53.5	14.0	Savona, Italy	Vancouver, B. C.	Ballast		5,612	4,119
President Polk	28	5.15	28	6.40	28	13.06	28	21.30	American	Dollar Line	502.0	62.2	28.11	New York, N. Y.	San Francisco, Cal.	General	4,587	12,660	9,254
Lubrico [1]	28	1.50	28	7.25	28	15.10	28	16.05	American	Tidewater Oil Co	425.0	57.2	15.0	New York, N. Y.	San Francisco, Cal.	Ballast		7,227	4,827
Durazzo	23	18.00	28	9.55	28	19.44	28	21.00	German	Hamburg-AmericanLine	227.0	34.0	13.11	Cristobal, C. Z.	Guayaquil,Ecuador	General	544	1,633	1,041
Tregenna	28	9.45	28	13.20	28	20.23	28	21.30	British	Can. Nat. Steamships	400.0	52.3	17.11	Halifax, N. S.	Dunedin, N. Z.	General	1,826	5,734	4,080
Hvoslef	27	19.10	28	15.10	28	21.34	28	23.00	Norwegian	Akteaselskabet Hav.	255.0	35.5	16.9	New Orleans, La.	Pto. Armuelles,R.P.	(8)	1,376	1,686	892
Port Melbourne	28	16.35	28	16.40	29	11.21	29	12.30	British	Com'lth & Dom. Line	501.0	63.0	26.0	New York, N. Y.	Adelaide, Australia	General	2,850	11,861	9,065
Cauca [3]	27	13.55	29	6.10	29	14.11	29	18.30	Colombian	National Navigation Co	107.2	22.0	8.0	Cristobal, C. Z.	Buenaventura, Col.	General	82	238	163
Leise Maersk [2]	28	18.35	29	6.05	29	14.19	29	15.30	Danish	Isbrand'n Moller & Co	302.0	44.0	18.4	New York, N. Y.	Manila, Philippines	General	2,670	3,212	2,206
Sudawsonco	28	19.05	29	6.05	29	15.19	29	16.20	American	Transmarine Lines	324.0	46.2	23.3	Newark, N. J.	San Francisco, Cal.	General	3,500	3,984	2,628
Mongolia	29	6.25	29	7.25	29	15.05	29	23.35	American	Panama-Pacific Line	600.0	65.3	28.0	New York, N. Y.	San Francisco, Cal.	General	2,241	17,041	4,426
Baluchistan	28	22.45	29	7.35	29	15.28	29	17.15	British	Common Brothers	381.0	51.3	14.0	So. Shields, Eng.	Vancouver, B. C.	Ballast		5,293	3,933
Karachi Maru	29	6.20	29	8.10	29	17.10	29	18.28	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.4	Boca Grande, Fla.	Yokohama, Japan	(7)	6,717	5,914	4,388
Suwied	29	8.42	29	9.00	29	17.21	29	18 34	American	Charles Nelson & Co.	324.0	46.2	22 0	Baltimore, Md	Tacoma, Wash	General	3,425	3,983	2,629
Marore	28	12.50	29	9.50	29	18.00	30	2.40	American	Ore S. S. Corp	550.3	72.2	22.3	Newport News,Va	Cruz Grande, Chile	Ballast		15,551	4,297
Tyr [2]	28	23.10	29	10.15	29	18.53	29	20.00	Norwegian	T. Hansen	357.0	51.0	22.9	Casilda, Cuba	San Francisco, Cal.	Sugar	6,431		
Henry D. Whiton	29	13.53	29	14.00	29	22.00	29	23.05	American	Union Sulphur Co	356.0	51.6	25.10	Galveston, Texas	Vancouver, B. C.	Sulphur	6,446	5,367	2,92[5]
Minnesotan	29	16 35	29	20.15	30	10.27	30	11.30	American	Amer.-Hawaiian Line	407 0	53.0	22.9	Boston, Mass	Portland, Oreg	General	3,865	7,150	5,02[4]

[1] Tanker. [6] Creosoted ties and general. [7] Phosphates and cotton.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

H. C. Folger [1]	22	22.45	23	6.06	23	14.20	23	14.20	American	Atlantic Refining Co.	435.0	56.0	27.0	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,193	7,461	5,159
Nellington Court	22	19.55	23	6.54	23	15.45	23	17.10	British	Haldin & Co	409.0	51.0	25.0	Vancouver, B. C.	Gibraltar [8]	Wheat	6,219	6,213	4,382
Santa Tecla	22	16.20	23	8.47	23	18.00	23	18.00	American	N. O. & S. A. S. S. Co.	280.6	40.0	22.0	Tocopilla, Chile	New Orleans, La.	Nitrates, ore	2,527	2,832	1,803
Durazzo	23	1.00	23	8.51	23	18.00	28	9.55	German	Hamburg-AmericanLine	227.0	34.5	13.4	Guayaquil,Ecuador	Cristobal, C. Z.	Coffee, cocoa	670	1,633	1,041
Toba Maru	22	17.00	23	9.12	23	16.50	24	00.40	Japanese	Nippon Yusen Kaisha	445.0	58.0	22.0	Manila, Philippines	Boston, Mass	General	8,567	8,058	5,743
El Aleto [1 2]	23	1.50	23	9.55	23	18.15	23	22.30	British	C. T. Bowring & Co	440.0	57.5	26.4	Cabo Blanco, Peru	Halifax, N. S.	Crude oil	10,200	7,555	5,049
Venezuela	23	8.05	24	6.28	24	13.12	26	00.30	American	Panama Mail S. S. Co.	380.0	48.7	22.8	San Francisco, Cal.	New York, N. Y.	(9)	1,811	6,033	
Ferndale [2]	23	23.00	24	7.25	24	14.08	24	15.45	Norwegian	Fern Line	382.7	53.4	26.3	Kobsichang, Siam	Habana, Cuba	Rice	7,515	6,082	4,222
Aconcagua	24	1.00	24	7.46	24	14.40	24	16.10	Chilean	Chilean Line	422.8	56.2	26.6	Valparaiso, Chile	New York, N. Y.	General	4,568	7,764	4,705
Canadian Winner	24	16.50	24	17.36	25	11.40	25	11.40	British	Can. Nat. Steamships	399.2	52.8	15.0	Adelaide, Australia	Halifax, N. S.	General	1,080	5,885	4,073

[1] Tanker. [8] For orders. [9] Coffee, wood, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
C. O. Stillman [1] [10]	24	21.20	25	5.20	25	15.10	25	18.10	British	Inter. Petroleum Co	565.7	75.6	33.0	Talara, Peru	New York, N. Y.	Crude oil	20,626	16,780	9,885
Atlas [1]	24	19.15	25	6.39	25	16.00	25	16.00	American	Standard Transp. Co.	430.0	58 2	27.0	Los Angeles, Calif.	Providence, R. I.	Kerosene	10,339	7,348	5,164
Herman Frasch	24	23.00	25	7.11	25	16.25	25	16.25	American	Union Sulphur Co	356 0	51.6	26.6	Tacoma, Wash	New York, N. Y.	Lumber	5,300	5,349	2,950
Brielle	25	3.00	25	7.30	25	18.58	25	22.25	Dutch	Royal Neth. S. S. Co.	400.0	58.0	2 .0	Corral, Chile	Hamburg, Germany	([12])	8,859	7,322	4,798
Mantaro	25	4.00	25	8.24	25	19.40	30	6.25	Peruvian	Peruvian Line	367.3	46.0	21.0	Callao, Peru	Cristobal, C. Z.	General	3,114	4,838	2,959
Dorothy Luckenbach	25	.00	25	8.52	25	17.20	25	1 .20	American	Luckenbach Line	449.0	60.0	29.0	Portland, Oreg.	Boston, Mass.	Lumber, general	9,000	9,294	6,861
Banan	25	1.30	25	9.24	25	19.35	26	21.50	Norwegian	United Fruit Co	250.0	34.7	16 8	Puntarenas, C. R.	Limon, Costa Rica	General	790	1,680	985
Buffalo Bridge	25	9.00	25	9.37	25	20.13	25	23.50	American	Charles Nelson & Co.	324.0	46 2	23.0	San Francisco, Cal.	Baltimore, Md.	Lumber, general	4,300	3,985	2,630
Willsolo	25	11.45	25	12.34	25	20.35	25	20.35	American	Williams S. S. Line	435.0	57.5	26.0	Seattle, Wash	New York, N. Y.	Lumber, general	8,911	7,983	5,882
Amerikaland [10]	25	11.00	25	15.11	26	13.25	26	13.25	Swedish	Ore S. S. Corp	561.0	72 2	33.6	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,500	15,560	4,496
Penelope [1] [10]	26	5.06	26	6.12	26	14.23	26	17.10	Danzig	Standard Oil Co	489.0	63.0	26.9	Talara, Peru	Hamburg, Germany	Gasoline	11,100	9,302	6,127
Camden [1]	26	6.36	26	7.45	26	15.45	26	18.35	American	United Fruit Co	419.5	56.5	26.3	Los Angeles, Calif.	Tela, Honduras	Fuel oil	9,185	6,977	4,959
Theodoros	26	5.30	26	8.15	26	16.52	26	16.52	Greek	A. Callinicos & Co.	420.0	51.2	26.0	Antofagasta, Chile	Azores [13]	Nitrates	8,428		
Andaluisa	26	6.30	26	8.57	26	17.50	26	17.50	Italian	D. Tripcovich	385.2	50.1	23.5	Iquique, Chile	Azores [13]	Nitrates	6,613	4,971	3,035
Franklin K. Lane [1]	26	11.35	26	12.32	26	19.58	26	19.58	American	Pan.-Amer. Pet. & Tr. Co	435.0	56.2	26.0	Long Beach, Calif.	New Orleans, La.	Gasoline	9,778	7,405	5,131
Nordpol [10]	26	12.15	26	13.23	26	20.15	26	20.15	Danish	DuPont de Nemours	380 8	63 9	27.2	Iquique, Chile	New Orleans, La.	Nitrates	8,700	6,252	4,519
Murla	26	12.37	26	13.47	26	21.55	27	1.15	German	Roland Line	450.0	58.0	26.3	San Antonio, Chile	Hamburg, Germany	Nitrates, general	7,872	7,756	5,378
Virgilio [10]	26	13.15	26	14.21	26	23.05	27	24.00	Italian	Nav. Gen. Italiana	502.9	61.8	25.4	Valparaiso, Chile	Genoa, Italy	General	4,124	12,941	9,329
Orrkid [11]	26		26		26				American	Earle Orr				Balboa, C. Z	Gatun Lake, C. Z.	Ballast			
Cauca [10]	26	17.20	27	6.30	27	13.55			Colombian	Cia. Nac. de Nav	107 0	22.9	11.0	Buenaventura, Col.	Cristobal, C. Z.	([14])	282	328	163
Ashby	26	20.30	27	7.04	27	14.50	27	17 15	British	Sir. R. Ropner & Co.	405 0	53.6	23.6	Vancouver, B. C.	Rotterdam, Holland	Wheat	7,649	5,858	4,300
Sonora	27	1.00	27	8.17	27	16.00	28	18.40	French	French Line	388.9	54.1	27.0	Vancouver, B. C.	Le Havre, France	Copper, general	8,130	6,394	4,424
Peru [10]	27	3.00	27	8.46	27	16.55	27	16.55	Danish	East Asiatic Co	413.0	53.0	28.9	Vancouver, B. C.	Copenhagen, Den.	Wheat, lumber	9,900	7,407	5,661
Walter D. Munson	26	20.00	27	9.10	27	16.20	27	16.20	American	Munson S. S. Line	368.2	48.2	23 0	Seattle, Wash	Baltimore, Md.	Lumber, general	5,091	4,606	3,271
Esparta	27	8.35	27	9.28	27	17.30			American	United Fruit Co	330.6	46.6	17.0	San Francisco, Cal.	Port Limon, C. R.	General	730	3,674	2,367
Holmpark	27	9.15	27	9.56	27	18.05	27	18.05	British	J. & J. Denholm	423.5	56.0	24.9	Iquique, Chile	Azores [13]	Nitrates	8,820	6,449	4,659
George M. Livanos	27	10.45	27	11.33	27	19.30	27	20.40	Greek	Livanos Brothers	380.8	52.1	23 0	Caleta Colosa, Chile	Azores [13]	Nitrates	7,700		
Lisbon Maru	27	11.45	27	14.21	27	21.15	28	00.30	Japanese	Nippon Yusen Kaisha	445.0	58.0	20.9	Manila, Philippines	Boston, Mass.	General	6,929	8,015	5,849
Kirkpool	27	17.30	27	18.28	28	11.45	28	15.03	British	Sir. R. Ropner & Co.	405.0	52.3	24.6	Vancouver, B. C.	Hull, England	Wheat	7,599	5,823	4,233
George W. Barnes [1]	27	20.00	28	6.13	28	15.00	28	15.00	American	Huasteca Petroleum Co.	416.8	56.1	26.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,100	6,763	4,759
Dakotan	28	2.48	28	6.40	28	13.30	28	13.30	American	Amer.-Hawaiian Line	407.7	53.7	29.0	Portland, Oreg.	Boston, Mass.	General	9,399	7,156	5,094
Cellina [10]	28	4.55	28	7.21	28	15.08	29	15.30	Italian	Nav. Libera-Triestina	430.0	55.3	26.4	Vancouver, B. C.	Trieste, Italy	Wheat, general	8,930	77,90	6,054
City of Panama [10]	26	16.40	28	9.29	28	16.05			Panaman	Panama Mail S. S. Co.	296.9	46.0	15.0	San Francisco, Cal.	Cristobal, C. Z.	([15])	934	3,848	2,603
Nyhaug [10]	28	8.15	28	12.22	28	19.40	28	19.40	Norwegian	Scand.-So. Pacific Line	330.7	51.5	22 2	Antofagasta, Chile	Le Havre, France	Nitrates, copper	6,040	4,788	3,347

[1] Tanker. [10] Motor ship. [11] Launch. [12] Nitrates, wool, and general. [13] For orders. [14] Coffee, hides, and platinum. [15] Coffee, logs, and general.

Captain Rokos	28	10.10	28	12.31	28	20.15	28	20.15	Greek	Vargottis	428.6	54.5	25.3	Taltal, Chile	Falmouth, Eng.[13]	Nitrates	8,400		
Boulderpool	28	11.55	28	13.49	28	21.40	29	5.30	British	Sir. R. Ropner & Co	405.0	53.5	23.6	Vancouver, B. C.	Rotterdam, Holland	Wheat	7,650	5,802	4,203
Sunelseco	28	13.15	28	14.26	28	22.30	28	22.30	American	Transmarine Lines	324.0	46.2	24.0	Aberdeen, Wash	New York, N. Y.	Lumber	3,610	3,984	2,612
Firby	28	14.00	28	15.12	29	00.20	29	00.20	British	Sir. R. Ropner & Co	390.0	55.0	23.3	Vancouver, B. C.	Antwerp, Belgium	Wheat	7,716	5,929	4,283
Cali	28	15.00	28	16.25	29	00.05			German	North German Lloyd	216.5	32.9	14.6	Guayaquil, Ecuador	Cristobal, C. Z	General	620	1,105	698
Pat [12]	28		28		28				American	C. P. Morgan				Balboa, C. Z	Gatun Lake, C. Z.				
Lebore	29	3.15	29	5.46	29	15.35	29	15.35	American	Ore S. S. Corp	549.6	72.2	34.6	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,260	14,325	4,635
Tomislav	28	19.30	29	7.11	29	16.15	29	17.15	Yugoslav	T. Racic, Dubrovnic	403.0	52.4	25.9	Antofagasta, Chile	Azores [13]	Nitrates	8,334		
Abron	28	20.30	29	7.43	29	16.50	29	16.50	American	Redwood Line	386.8	52.2	23.6	San Francisco, Cal.	Mobile, Ala	Lumber, general.	5,900	5,732	4,131
Gen. W. M. Graham [16]			29	7.46	29	15.35			American	U. S. Army	160.2	32.0		Balboa, C. Z	Cristobal, C. Z				
Willowpool	29	4.30	29	8.25	29	18.30	29	20.15	British	Sir. R. Ropner & Co	390.0	55.5	23.4	Vancouver, B. C.	United Kingdom	Wheat	7,542	5,898	4,321
Orbita	28	23.40	29	8.50	29	18.50	29	20.50	British	Pacific Steam Nav. Co	550.3	67.3	31.5	Talcahuano, Chile	Liverpool, England	General	8,048	16,844	11,731
King John [10]	29	4.23	29	9.06	29	18.55	29	18.55	British	Dodd, Thompson & Co.	416.0	55.0	23.9	Vancouver, B. C.	Rotterdam, Holland	Wheat	7,615	6,284	4,335
San Rosendo [1]	29	3.30	29	9.55	29	20.35	29	20.35	British	Eagle Oil Trans. Co	407.0	52.0	25.3	San Francisco, Cal.	Lizards, Eng. [13]	Gasoline	7,373	6,237	4,353
Thirlby	29	8.15	29	10.19	29	19.45	29	23.07	British	Sir. R. Ropner & Co	405.1	53.5	24.0	Vancouver, B. C.	Avonmouth, Eng	Wheat	7,851	5,873	4,292
Havel [10]	29	8.20	29	10.58	29	20.28	30	1.10	German	North German Lloyd	474.1	61.1	27.0	Vancouver, B. C.	Antwerp, Belgium	Lumber, general.	8,755	9,305	6,790
Atlantis	29	9.30	29	11.31	29	21.47	29	21.47	Greek	Rethymnis & Kuluk'dis.	410.4	54.0	25.0	Taltal, Chile	Azores [13]	Nitrates	7,950	6,230	4,540

[1] Tanker. [16] Mineplanter.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
December 23	Ulua	United Fruit Co	Port Limon, Costa Rica.
December 23	Palatia	Hamburg-American Line	Hamburg via wayports.
December 23	Anachucuna [17]	United Fruit Co	Colon, R. P.
December 24	Toloa	United Fruit Co	New York via Habana.
December 24	San Pablo	United Fruit Co	New York, N. Y.
December 25	Granada	Standard Fruit & S. S. Co	New Orleans, La.
December 26	Saramacca	United Fruit Co	Port Limon, C. R.
December 26	Reliance	Hamburg-American Line	New York via wayports.
December 26	Santa Marta	United Fruit Co	New York via Kingston.
December 27	Coppename	United Fruit Co	New Orleans, La.
December 27	Franconia	Cunard Line	New York via wayports.
December 28	Pellerin de LaTouche	French Line	Havre via wayports.
December 28	Simon Bolivar	Royal Netherlands S. S. Co	Hamburg via wayports.
December 28	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
December 28	Carinthia	Cunard Line	New York, N. Y.
December 28	Catherine	Bull Insular Line	San Juan, P. R.
December 28	Iriona	United Fruit Co	New York, N. Y.
December 29	Duchess of Bedford	Canadian Pacific S. S. Co	New York via wayports.
December 29	Linda S. [18]	Surgeon Brothers	Colon, R. P.
December 29	Orinoco	Hamburg-American Line	Hamburg via wayports.
December 29	Iriona	United Fruit Co	Perme, R. P.
December 29	Heredia	United Fruit Co	New Orleans via Habana.
December 29	Willsolo	Williams Line	High seas.
December 29	Anachucuna [17]	United Fruit Co	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
December 23	Ulua	United Fruit Co	New York via Habana.
December 23	Cristobal	Panama Railroad S. S. Line	New York via Haiti.
December 23	Anachucuna [17]	United Fruit Co	Colon, R. P.
December 24	Parismina	United Fruit Co	New Orleans and wayports.
December 25	Palatia	Hamburg-American Line	Port Limon, Costa Rica.
December 26	San Pablo	United Fruit Co	Puerto Colombia.
December 26	Saramacca	United Fruit Co	Port Limon, Costa Rica.
December 26	Toloa	United Fruit Co	Port Limon, Costa Rica.
December 26	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
December 26	Reliance	Hamburg-American Line	New York via Habana.
December 27	Santa Marta	United Fruit Co	New York via wayports.
December 27	All America [19]	All America Cables	High seas.
December 27	Franconia	Cunard Line	New York via wayports.
December 27	Coppename	United Fruit Co	Pto. Colombia and Bocas.
December 28	Granada	Standard Fruit & S. S. Co	New Orleans and wayports.
December 28	Iriona	United Fruit Co	Perme, R. P.
December 29	Pellerin de LaTouche	French Line	Havre via wayports.
December 29	Carinthia	Cunard Line	New York via Habana.
December 29	Linda S. [18]	Surgeon Brothers	Bluefields, Nicaragua.
December 29	Simon Bolivar	Royal Netherlands S. S. Co	Curacao and Pto. Colombia.
December 29	Iriona	United Fruit Co	New Orleans, La.
December 29	Anachucuna [17]	United Fruit Co	Colon, R. P.
December 29	Willsolo	Williams Line	New York, N. Y.

[17] Motor boat. [18] Motor schooner. [19] Cable ship. * Other than ships passing through the Canal.

(**Continued on page 312, column 2.**)

United States Fleet Concentration, Panama Bay.

The United States Fleet (175 vessels) will concentrate in Isthmian waters during the period January 17 to March 10, 1929. The first section, due to arrive at Cristobal on January 17, will be composed of the Scouting Fleet, Control Force, and Train Squadron No. 1, consisting of the following units: Five battleships, 5 cruisers, 32 destroyers, 24 submarines, 3 mine layers, 7 mine sweepers, 2 eagle boats, 1 aircraft tender, 7 auxiliaries.

These vessels will transit the Canal between the 17th and 22d of January and then engage in a strategic problem in the Pacific with the Battle Fleet (consisting of 9 battleships, 1 cruiser, 3 aircraft carriers, 40 destroyers, 12 submarines, 2 mine layers, and 22 auxiliaries)—southbound from San Pedro, Calif.—until January 30, at which time the combined fleet will base at Panama Bay until early March. Various units of the fleet will be under way in Panama Bay for tactical exercises between February 7 and 8, and February 11 and 15; and the combined fleet will engage in tactical maneuvers between February 25 and March 1. The Scouting Fleet, Train Squadron No. 1, and Battleship Division No. 3 (Battle Fleet) will transit the Canal between March 2 and 7, and on March 8 sail for Guantanamo, Cuba, while the vessels of the Battle Fleet will remain in Panama Bay until March 11, on which day they are scheduled to depart for San Pedro, Calif.

Overhaul of Pacific Locks.

Work on the quadrennial overhaul of the locks at Pedro Miguel and Miraflores will be commenced January 3, 1929, and completed in about four months. The work involved will be essentially the same as in previous overhauls except the additional item of complete installation of 60 new cylindrical valves, and the removal, inspection, and repair of a pair of miter gates on the east side of Pedro Miguel.

At each of the Pacific locks, the side which is in service will be manned by one crew of 10 operators from 7 a. m. to 11 p. m., and one crew of 8 operators from 11 p. m. to 7 a. m.

The overhaul will call for an additional force of 68 gold and 400 silver men. A separate force will be organized to carry on the work of examination of the pair of miter gates, which personnel will probably be taken from the overhaul force when the bulk of the work is completed.

Supplement No. 10—Tariff No. 9.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., *December 31, 1928.*

ITEM 17—MEDICAL AND HOSPITAL TREATMENT.
(Effective January 1, 1929.)

Paragraph 4—Add the following:

When a physician has to remain on a ship while it transits Miraflores Lake due to inability to complete his services while at Miraflores or Pedro Miguel Locks, a charge of $7.50 will be made in addition to the regular charge for the visit of a physician to vessels transiting the Canal.

J. L. SCHLEY,
Acting Governor, The Panama Canal,
Second Vice President, Panama Railroad Company.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending December 22, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Targis	North German Lloyd		December 16		237
Managui	United Fruit Co		December 16		609
Atrato	Colombian Transport Co		December 16		162
Acajutla	Pacific Steam Navigation Co		December 16		1,106½
Lobos	Pacific Steam Navigation Co	December 16	December 16	108	1
Margaret Johnson	Johnson Line	December 16	December 16	(1)	107
Pastores	United Fruit Co	December 16	December 16	51	508
Victorious	American-Pioneer Line	December 16	December 17	390	(2)
Paraguay	Hamburg-American Line	December 16	December 19	13	12
Cartago	United Fruit Co		December 17		38
Santa Elisa	Grace Line	December 17	December 17	4	124
Linda S	R. Feuillebois	December 17	December 17	(1)	14½
Zenon	French Line	December 17	December 18	35	26
Los Angeles	Hamburg-American Line	December 17	December 18	7	374
Arana	Pacific Steam Navigation Co	December 17	December 18	48	108
Antillian	Leyland Line		December 18		2,500
Maravi	United Fruit Co	December 17	December 19	237	235
Ulua	United Fruit Co	December 17	December 19	690	33
Lochgoil	Pacific Steam Navigation Co	December 17	December 19	20	382
Leon XIII	Spanish Line	December 18	December 19	91	305
Camito	Elders & Fyffes, Ltd	December 18	December 19	¾	(2)
Glamorganshire	Pacific Steam Navigation Co	December 18	December 19	637	(2)
Wanks	Standard Fruit & S. S. Co	December 18	December 19	80	26
Garfield	N. O. & S. A. S. S. Line	December 18	December 19	20	192
Martha	Ch. Hannevig	December 18		1,005	
Saramacca	United Fruit Co	December 19	December 20	663	64
Zacapa	United Fruit Co	December 19	December 20	706	126
Manizales	Roland Line		December 20		423
Cristobal	Panama Railroad S. S. Line	December 19		6,691	
Baralt	Royal Netherlands S. S. Co	December 19		588	
Legazpi	Spanish Line	December 19	December 20	228	22
Galicia	Hamburg-American Line	December 19	December 20	281	228
Orcoma	Pacific Steam Navigation Co	December 19	December 20	105	175
Gatun	Standard Fruit & S. S. Co	December 19	December 21	443	630
Adolf von Baeyer	Hamburg-American Line	December 20	December 21	28	266
Suriname	United Fruit Co	December 21	December 21	66	393
West Nilus	McCormick S. S. Co	December 21	December 21	66	(2)
Corinto	Panama Mail S. S. Co	December 21		684	
Wanks	Standard Fruit & S. S. Co	December 21		75	
William M	R. Feuillebois	December 21	December 21	(1)	16½
Caldas	National Navigation Co		December 21		321
San Mateo	United Fruit Co	December 21	December 22	601	337
Minden	North German Lloyd	December 22		88	
Parismina	United Fruit Co	December 22		514	

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending December 29, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Leon XIII	Spanish Line	December 17	December 18	116	
Cathwood	Union Oil Co	December 17	December 19	10,275	6
Willanglo	Babcock S. S. Corp	December 18	December 18	7	
Corinto	Panama Mail S. S. Co	December 20	December 21	27	
Kenowis	U. S. Government	December 20	December 22	2,299	133
Caldas	National Navigation Co	December 21	December 21		5
Adolf Von Baeyer	Hamburg-American Line	December 21	December 22	819	19
Toba Maru	Nippon Yusen Kaisha	December 22	December 23	113	
Venezuela	Panama Mail S. S. Co	December 23	December 24	150	
Sirius	U. S. Government	December 24	December 25	7	25
Colombia	Panama Mail S. S. Co	December 25	December 26	106	64
City of Panama	Panama Mail S. S. Co	December 26	December 28	119	
Lisbon Maru	Nippon Yusen Kaisha	December 27	December 27	68	
Santa Maria	Grace Line	December 27	December 27		95

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessel furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessels to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of the tariff, and for handling lines in accordance with Item 4 of the tariff.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.—Continued from page 309.

PORT OF BALBOA.

* ARRIVALS.

Date.	Vessel.	Line.	From—
December 23	El Panquiaco [20]	Panaman Government	Panama Bay, R. P.
December 24	Cricamola [21]	Chiriqui Land Co	Pto. Armuelles, R. P.
December 27	A. B. de Obarrio [22]	Pacific Fruit Co	Bayano River, R. P.
December 27	Dos Hermanos [22]	A. Valdez	Bayano River, R. P.
December 27	El Colon [22]	H. Elliot	Sambu River, R. P.
December 27	Big Bill [22]	H. Elliot	Sambu River, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
December 25	Cricamola [22]	Chiriqui Land Co	Pto. Armuelles, R. P.
December 26	El Panquiaco	Panaman Government	Panama Bay, R. P.
December 27	A. B. de Obarrio [22]	Pacific Fruit Co	Bayano River, R. P.
December 27	Dos Hermanos [22]	A. Valdez	Bayano River, R. P.
December 27	El Colon [22]	H. Elliot	Panama Bay, R. P.
December 27	Big Bill [22]	H. Elliot	Panama Bay, R. P.

[20] Revenue cutter. [21] Motor ship. [22] Motor schooner.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., January 9, 1929. No. 23.

Tanker Traffic Through the Panama Canal in December, 1928.

During the month of December, 1928, 81 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 424,650, on which tolls of $369,831.11 were collected. Cargo amounted to 360,704 tons. In point of net tonnage, tanker traffic for the past month showed a decrease of 22.2 per cent under the same traffic for the corresponding month of the preceding year, while cargo tonnage decreased 32.9 per cent under the cargo tonnage of December, 1927.

Tank ships comprised 14.1 per cent of the total commercial transits through the Canal during the month; made up 15.7 per cent of the total Panama Canal net tonnage; were the source of 15.1 per cent of the tolls collected; and carried 13.3 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of December, 1928, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the two preceding months and for December, 1927:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
Belgian	1	4,976	$5,710.00	8,100
British	8	32,906	23,692.32	
Danish	2	11,822	8,511.84	
French	2	9,685	6,973.20	
German	1	4,186	3,013.92	
Norwegian	3	13,140	9,460.80	
Panaman	1	6,650	4,788.00	
United States	26	146,382	109,013.39	7,600
Totals, December, 1928	44	229,747	171,163.47	15,700
Totals, November, 1928	37	204,612	149,609.70	9,244
Totals, October, 1928	48	246,410	181,883.99	32,050
Totals, December, 1927	48	265,281	196,036.57	26,347
Pacific to Atlantic.				
British	9	45,477	47,190.14	76,894
Danzig	1	6,127	6,585.00	11,100
Norwegian	4	18,481	19,930.00	35,895
Swedish	1	6,295	6,486.25	11,872
United States	22	118,523	118,476.25	209,243
Totals, December, 1928	37	194,903	198,667.64	345,004
Totals, November, 1928	44	233,612	241,705.35	424,708
Totals, October, 1928	34	198,107	200,340.90	358,076
Totals, December, 1927	52	280,619	289,307.60	511,710

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, with the totals for the two preceding months and for December, 1927:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
December, 1928	38	201,765	$151,016.43	15,700
November, 1928	29	160,638	115,659.36	.....
October, 1928	36	186,866	135,890.77	7,124
December, 1927	35	197,812	143,525.88	12,230
From Los Angeles.				
December, 1928	26	136,116	137,683.75	243,385
November, 1928	33	174,578	180,329.10	317,050
October, 1928	23	134,002	131,918.40	232,617
December, 1927	39	213,489	218,011.85	395,186

Peruvian Naval Vessels at Balboa.

Seven units of the Peruvian Navy arrived at Balboa on January 8 for a 10-day visit to the Isthmus as a part of their annual practice cruise. The vessels are the cruisers *Almirante Grau*, *Coronel Bolognesi*, submarine tender *Lima*, and submarines *R 1*, *R–2*, *R–3*, and *R–4*. The combined crews of these vessels total 1,200 men and there are also a number of midshipmen from the Peruvian Naval Academy. The *Almirante Grau* and four submarines are to spend several days in dry dock for the purpose of cleaning bottoms.

Supplement No. 13.—Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *December 28, 1928.*

Regulations 47.8, contained in Supplement No. 2 of May 12, 1926, to the "Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters," which prohibits loaded oil tankers from passing through Gaillard Cut during darkness, is hereby canceled, effective January 1, 1929.

J. L. SCHLEY,
Acting Governor.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending December 29, 1928.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cristobal	Panama Railroad S. S. Line		December 23.		465
Minden	North German Lloyd		December 23.		323
Toba Maru	Nippon Yusen Kaisha	December 23.	December 23.	478	(2)
Ulua	United Fruit Co	December 23.	December 23.	9	471
Baralt	Royal Netherlands S. S. Co		December 24.		154
Parismina	United Fruit Co		December 24.		120
Kastalia	Donaldson Brothers		December 24.		355
Palatia	Hamburg-American Line	December 23.	December 25.	295	(2)
Durazzo	Hamburg-American Line	December 23.	December 28.	760	548
Aconcagua	Chilean Line	December 24.	December 24.	½	(2)
Corinto	Panama Mail S. S. Co		December 25.		2,259
Colombia	Panama Mail S. S. Co	December 24.	December 25.	845	520
Orazio	Italian Line	December 24.	December 25.	374	93
San Pablo	United Fruit Co	December 24.	December 26.	969	148
Toloa	United Fruit Co	December 24.	December 26.	1,243	3
Venezuela	Panama Mail S. S. Co	December 24.	December 26.	328	568
Brielle	Royal Netherlands S. S. Co	December 25.	December 25.	86	(2)
Banan	United Fruit Co	December 25.	December 26.	541	7
Alkmaar	United Fruit Co	December 25.	December 26.	430	235
Granada	Standard Fruit & S. S. Co	December 25.	December 28.	362	351
Mantaro	Peruvian Line	December 25.	December 29.	3,114	(2)
Murla	North German Lloyd	December 26.	December 26.	38	15
Santa Cruz	Grace Line	December 26.	December 26.	1	50
Saramacca	United Fruit Co	December 26.	December 26.	(1)	294
Santa Marta	United Fruit Co	December 26.	December 27.	1,018	132
Virgilio	Italian Line	December 26.	December 27.	50	629
Coppename	United Fruit Co	December 27.	December 27.	716	45
Santa Maria	Grace Line	December 27.	December 27.	(1)	6
Martha	Chr. Hannevig		December 27.		719
Esparta	United Fruit Co	December 27.		1,077	
Sonora	French Line	December 27.	December 28.	359	204
Lisbon Maru	Nippon Yusen Kaisha	December 27.	December 28.	89	(2)
Hvoslef	United Fruit Co	December 27.	December 28.	(1)	540
Pellerin de LaTouche	French Line	December 28.	December 28.	270	625
Wanks	Standard Fruit & S. S. Co	December 28.		70	
Simon Bolivar	Royal Netherlands S. S. Co	December 28.	December 29.	162½	1,028
City of Panama	Panama Mail S. S. Co	December 29.		1,003	
Orbita	Pacific Steam Navigation Co	December 29.	December 29.	5½	7
Linda S.	R. Feuillebois	December 29.	December 29.	(1)	29
Iriona	United Fruit Co	December 29.	December 29.	(1)	725
Havel	North German Lloyd	December 29.	December 29.	(1)	130
Heredia	United Fruit Co	December 29.		580	
Wasgenwald	Hamburg-American Line	December 29.		45	
Orinoco	Hamburg-American Line	December 29.		456	
Cali	North German Lloyd	December 29.		620	
Cauca	National Navigation Co	December 27.	December 29.	312	82

(1) No cargo discharged. (2) No cargo laded.

New Dollar Liners to Have Electric Propulsion.

Supplementing the article in THE PANAMA CANAL RECORD of December 12, 1928, concerning the expansion program of the Dollar Steamship Line, it has been announced that the specifications for the new tonnage to be constructed for the company's around-the-world service designate electric drive propulsion similar to that specified for the turbo-electric liners *California* and *Virginia* of the Panama Pacific Line. Designs are now being worked out for the first liner, which will cost approximately $7,000,000. It is stated that the issuance of plans for the 3 new liners has been delayed somewhat in an effort to anticipate the trend of propulsion and ship design for the next 10 years, and to plan the new tonnage so as best to meet the demands that will be made of ocean liners in that period.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, January 5, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Wasgenwald	29	7.15	30	6.08	30	13.10	31	3.55	German	Hamburg-American Line	399.0	54 0	23 0	Hamburg, Germany	Valparaiso, Chile	(4)	4,998	6,536	4,516
Redwing [2]	29	17.00	30	6.20	30	11.54	1-3	11.26	American	U. S. Navy	186 0	30 0	12 0	Norfolk, Va.	Astoria, Wash.				
Galena [1]	29	17.38	30	6.20	30	13.26	30	15.05	American	Texas S. S. Co.	391 8	51 3	22 6	Port Arthur, Tex.	Los Angeles, Calif.	Refined oil	5,130	5,552	3,757
Port Pirie	30	2.40	30	7.18	30	14.59	30	16.10	British	Com'lth & Dom. Line	470.0	58 0	23 6	Barry, England	Dunedin, N. Z.	General	5,132	9,381	6,915
Port Alma [3]	29	24.00	30	11.20	30	17.41	31	1.00	British	Com'lth & Dom. Line	477.0	63 0	28 0	Antwerp, Belgium	Dunedin, N. Z.	General	8,928	10,684	7,796
Woodfield	30	19.25	30	20.10	31	9.56	31	11.07	British	Anglo-Chilean Ni'te Co.	400.0	53 0	14 0	Philadelphia, Pa.	Tocopilla, Chile	Ballast		5,798	4,118
Ballena	30	19.10	31	6.00	31	14.17	31	15.30	British	Pacific Steam Nav. Co.	400 0	52.0	22 2	Hull, England	Corral, Chile	General	2,643	5,816	4,113
Sutorpeo	31	00.15	31	6.25	31	15.14	31	16.35	American	Transmarine Line.	324.0	46.0	23.0	Mobile, Ala.	Seattle, Wash.	General	4,605	3,984	2,612
Cape York [3]	31	4.00	31	7.25	31	15.19	31	21.40	British	Texas S. S. Co.	409.0	54 0	24 6	Port Arthur, Tex.	Adelaide, Australia	Case oil	6,914	6,927	4,802
East Lynn [3]	31	4.25	31	7.30	31	16.08	31	18.10	British	Sir. W. R. Smith & Sons	401.0	54 3	14 6	Glasgow-England	Vancouver, B. C.	Ballast		6,784	5,107
Toledo [3]	31	5.55	31	8.20	31	16.58	31	20.35	Norwegian	Barber S. S. Line	376.2	52.5	19.9	New York, N. Y.	Shanghai, China.	General	4,312	5,491	4,011
Elmbank [3]	31	8.18	31	8.35	31	17.44	31	22.20	British	Bank Line, Ltd.	420 0	53 9	23 0	New York, N. Y.	Yokohama, Japan	General	5,682	7,097	4,994
Apple Branch	31	8.35	31	9.40	31	18.37	31	19.45	British	F. & W. Ritson.	376.0	51.7	21.0	Liverpool, England	Corral, Chile	General	3,355	5,112	3,511
Saramacca	31	3.40	31	9.50	31	18.37	31	19.45	American	United Fruit Co.	336.7	42.0	20.0	Port Limon, C. R.	San Francisco, Cal.	(5)	676	3,668	2,308
Dramatist	30	8.45	31	11.00	31	19.20	31	20.35	British	T. & J. Harrison.	410.0	52.0	20.0	Liverpool, England	Vancouver, B. C.	Ballast		6,202	4,154
Fermia [3]	31	8.30	31	11.40	31	20.30	31	23.35	Swedish	Comyn & Co.	350.0	50.0	15.0	Antwerp, Belgium	Los Angeles, Calif.	Sand and rags	2,263	4,952	3,532
Canadian Ranger	31	10.10	31	12.40	31	20.30	31	22.00	British	Can. Nat. Steamships	400.0	52.0	24 0	Sydney, C. B.	Vancouver, B. C.	General	6,361	5,879	4,121
City of Winchester	31	10.42	31	14.05	31	21.22	31	22.55	British	Ellerman Lines	456.5	57.9	26 10	New York, N. Y.	Fremantle, Aust'lia.	General	6,496	8,796	6,600
Kattegat [1] [3]	31	20.47	1-1	6.40	1-1	13.12	1-1	19.02	German	Atlantic Tank Co.	410 0	55 8	19.0	Rouen, France	Los Angeles, Calif.	Ballast		6,389	4,133
Finn [3]	31	17.10	1	6.20	1	18.00	1	19.02	Swedish	Colombian Mari. Co.	271 0	41.0	14.0	New York, N. Y.	Buenaventura, Col.	(6)	521	2,472	1,513
Sun [1] [3]	31	20.50	1	6.35	1	17.00	1	18.05	American	Sun Oil Co.	480.6	66.0	22 0	Chester, Pa.	Los Angeles, Calif.	Ballast		9,620	6,424
Virginian	31	23.30	1	7.15	1	16.50	1	17.50	American	Amer.-Hawaiian Line	491 5	58 2	19 0	Boston, Mass.	Tacoma, Wash.	General	2,400	10,491	7,601
Atlantic	1-1	5.00	1	8.25	1	17.45	1	21.46	American	Argonaut S. S. Co.	410.5	54 3	23 0	Baltimore, Md.	Vancouver, B. C.	Steel, general	7,035	6,567	4,917
Romsdalshorn	1	5.50	1	8.40	1	18.27	1	19.35	Norwegian	Jacob R. Olson	420.0	53 9	15 0	Newport News, Va.	Arica, Chile	Ballast		6,592	4,733
Parana	1	1.20	1	9.30	1	19.22	1	20.35	Danish	Canadian Transp. Co.	398 0	55.0	16.0	Newcastle-on-Tyne	Col. River, Wash.	Ballast		7,088	5,219
Tiberton	1	8.50	1	9.40	1	19.35	1	20.35	British	L. Dreyfus & Co.	400.1	52.3	17.0	Cardiff, England	Vancouver, B. C.	Ballast		5,699	4,266
Ilona Siemers	1	14.05	1	17.25	2	21.00	2	10.15	German	G. I. H. Siemers.	332.0	45.0	16.11	Philadelphia	Yokohama, Japan	General	1,500	3,472	2,159
Dean Emery [1]	1	20.25	1	20.45	2	23.09	2	11.59	American	Huasteca Petroleum Co.	429.3	59.2	21.0	Baltimore, Md.	Los Angeles, Calif.	Ballast		7,709	5,517
J. L. Luckenbach	1	20.47	2	6.50	3	00.15	3	1.15	American	Luckenbach Line	448.9	60.2	23.0	Boston, Mass.	Seattle, Wash.	General	4,000	9,294	6,861
Oran	2	2.15	2	6.40	2	22.12	2	23.10	American	Oriental Navigation Co.	409.0	54.2	20 0	Wilmington, Del.	Seattle, Wash.	General	4,834	6,755	4,887
Huguenot [1]	2	6.40	2	8.40	3	1.30	3	9.01	American	B. L. Shipping Co.	434.8	56 2	24 0	Amst'dam, Holland.	Vancouver, B. C.	Creosote	8,663	7,394	5,099
Lio [3]	2	9.45	2	10.00	3	2.25	3	3.53	American	Standard Transp. Co.	431 0	49.2	22.0	Providence, R. I.	Los Angeles, Calif.	Ballast		7,846	5,112
Mantaro	1	13.53	2	10.20	3	3.55	3	5.20	Peruvian	Peruvian Line	367.3	46.0	19.11	Covenas, Colombia	Callao, Peru	General, cattle	244	4,838	2,959
Aghios Marcus	2	7.25	2	12.25	3	4.00	3	5.20	Greek	Margaronis Brothers	400.0	54.0	16.0	Pto. Cabello, Ven.	Arica, Chile	Ballast		6,319	4,655
Balboa [3]	1	16.05	2	12.35	3	5.13	3	9.50	Swedish	Johnson Line	426.0	56.0	21.5	Gothenburg, Swed.	San Francisco, Cal.	(7)	5,665	7,480	5,533

[1] Tanker. [2] Coast guard cutter. [3] Motor ship. [4] Cement, iron, paper, and general. [5] Bananas, coffee, and cocoa. [6] Automobiles, cement, wheat, and general. [7] Paper, cement, and general.

Tahchee [1]	2	10.30	2	13.30	3	6.06	3	7.13	British	Standard Transp. Co.	420.5	54.4	18.0	Baltimore, Md.	Los Angeles, Calif.	Ballast		6,672	4,623
Orita	2	15.35	3	6.25	3	18.28	3	19.20	British	Pacific Steam Nav. Co.	485.0	58.0	25.0	Liverpool, England	Talcahuano, Chile.	General	5,039	9,936	6,561
Chilore	1	8.40	3	6.15	3	19.29	3	20.40	American	Ore S. S. Corp	549.0	72.0	22.0	Norfolk, Va.	Cruz Grande, Chile	Ballast		14,538	9,348
Bantu	2	11.10	3	7.15	3	21.04	4	12.10	American	Isthmian S. S. Lines	360.0	47.0	27.0	New York, N. Y.	Corral, Chile.	Steel, general	4,986	4,607	3,032
Point Reyes	2	21.20	3	7.30	3	21.25	3	22.00	American	Swayne & Hoyt	324.0	46.2	24.0	Lake Charles, La.	Tacoma, Wash.	([12])	4,298	3,984	2,617
San Ugon [2]	2	18.35	3	7.25	3	22.20	4	00.12	British	Anglo-Mex. Pet. Co.	413.0	53 4	19.0	London, England	Los Angeles, Calif.	Ballast		5,976	4,069
Hegira	3	3.25	3	8.40	3	22.58	4	5.47	American	Norton, Lilly & Co.	440.0	56.0	27.8	Baltimore, Md.	Seattle, Wash.	Steel	9,734	8,353	6,113
Hardanger	3	6.20	3	10.05	4	00.01	4	5.50	Norwegian	Westfal, Larsen & Co.	375.0	52.3	14.4	Santos, Brazil	Vancouver, B. C.	Bones, general	2,259	5,977	4,375
Pacific Spruce	3	8.35	3	10.05	4	2.08	4	3.36	American	Dimon S. S. Corp	409.0	54.0	20.0	New York, N. Y.	Tacoma, Wash.	General	4,678	6,624	4,757
Itauri	2	5.00	3	11.45	4	3.05	5	1.00	German	Hamburg-AmericanLine	438.0	55.0	19.7	Hamburg,Germany	Valparaiso, Chile	General	3,041	7,004	5,017
Santa Veronica	3	5.05	3	12.50	4	4.48	4	5.45	American	Isthmian S. S. Lines	251.0	43.0	25.7	Baltimore, Md.	Honolulu, T. H.	([13])	3,191	2,823	1,740
St. Mihiel [8]	3	10.45	3	14.45	4	00.58	4	13.40	American	U. S. Army	436.0	58.0	24.0	New York, N. Y.	San Francisco, Cal.	Army supplies	400		
Steel Voyager	3	14.45	3	15.05	4	4.26	4	13.10	American	Isthmian S. S. Lines	395.0	55.0	27.5	Mobile, Ala.	Osaka, Japan	([11])	8,471	7,330	5,249
Ainderby	3	16.35	3	16.55	4	18.00	4	21.20	British	Empire Shipping Co.	390.0	55.0	15.0	Tyne, England	Vancouver, B. C.	Ballast		5,937	4,263
Essequibo	3	19.00	4	6.05	4	19.12	4	20.15	British	Pacific Steam Nav. Co.	450.0	57.8	25.10	New York, N. Y.	Talcahuano, Chile.	General	2,861	9,158	6,176
Nordsee [4]	3	9.15	4	6.20	4	19.12			Peruvian	Piaggio	108.0	26.0	8.6	Hamburg,Germany	Callao, Peru	Bal'ast		276	144
Floreana [9]	1 2–18	21.10	4	6.20	4	20.40	5	7.47	Colombian	Colombian Transp. Co	150.0	27.0	8.5	Pto. Colombia, Col	Buenaventura, Col.	General	411	410	307
Bohemian Club [4]	1–3	23.10	4	6.30	4	20.25	4	22.40	American	Atlantic Refining Co.	425.0	57.2	22.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,204	4,769
Uganda	3	23.20	4	7.15	4	21.37	4	22.50	British	Wessel, Duval & Co.	405.0	52.5	16.0	Newport News, Va.	Arica, Chile.	Ballast		5,593	4,069
Henri Desmarais [1]	4	1.50	4	7.35	4	22.45	5	3.43	French	Co. Fran. Mag. & Trans	400.5	51.2	16.6	Havre, France	Los Angeles, Calif.	Ballast		5,930	4,178
Steelore	3	11.15	4	8.45	4	23.48	5	1.10	American	Ore S. S. Corp	550.2	72 2	21.7	Norfolk, Va.	Cruz Grande, Chile	Ballast		15,551	4,297
Jamaica	1 2–31	18.30	4	10.10	4	21.46	4	22.55	British	Pacific Steam Nav. Co.	220.0	34.0	13.6	Cristobal, C. Z.	Champerico, Guat.	General	784	1,187	622
Pacific Enterprise [3]	1–2	14.50	4	11.08	5	00.50	5	3.15	British	Furness, Withy & Co.	435.0	60.1	20.5	Glasgow-England	Vancouver, B. C.	General, bananas	1,433	9,641	6,989
Nicolas Zafirakis	4	16.45	4	20.50	5	5.54	5	18.20	Greek	Zafirakis & Co.	348.0	46.0	14.0	Piraeus, Greece	Arica, Chile	Ballast		3,984	2,958
Royalstar	4	19.05	5	6.25	5	15.47	5	17.30	British	Blue Star Line	450.0	58.0	20.0	Newcastle-on-Tyne	Vancouver, B. C.	Ballast		8,561	5,815
Joseph Seep [1]	5	00.45	5	7.15	5	16.48	5	18 20	American	Standard Shipping Co.	429.0	59.0	20.6	Baytown, Texas	San Francisco, Cal.	Ballast		7,825	5,616
Dunrobin	5	1.40	5	7.45	5	17.50	5	19.00	British	Anglo-Chilean Ni'te Co.	404.0	53.0	14.7	Norfolk, Va.	Tocopilla, Chile	Ballast		5,651	4,076
Paul Shoup [1]	5	6.00	5	8.20	5	18.50	5	19.50	American	Atlantic Refining Co.	424.4	58.2	23.0	Philadelphia, Pa.	San Francisco, Cal.	Ballast		7,333	5,182
Welsh City	5	6.15	5	8.35	5	19.52	5	21.00	British	Reardon Smith Line	411.0	54.5	15.3	Barry, England	Vancouver, B. C.	Ballast		6,957	5,133
Vinland [5]	5	7.35	5	10.58	5	21.15	6	7.46	Norwegian	O. A. Knutsen	368.5	53.7	22.0	Aalborg, Denmark	Buenaventura, Col.	([15])	6,999	5,413	3,965
Orion	5	4.15	5	11.15	5	21.17	5	22.15	Danish	Orion S. S. Co.	303.0	43.0	15.6	Port Limon, C. R.	Puntarenas, C. R.	General	998	2,800	1,723
Galveston [10]	5	9.08	5	12.15	5	22.35			American	U. S. Navy	292.0	44.0	17.4	Cristobal, C. Z.	Balboa, C. Z.				
Banan	5	4.35	5	12.10	5	22.30	5	23.38	Norwegian	United Fruit Co.	250.0	34.7	17.2	Port Limon, C. R.	Puntarenas, C. R.	General	1,087	1,680	987
Visurgis	3	22.15	5	13.15	5	23.37	6	1.04	German	Roland Line	231.2	37.8	16.8	Emden, Germany	Puntarenas, C. R.	Iron	1,838	1,406	855
Jan Van Nassau	5	8.05	5	14.08	5	23.50	6	1.04	Dutch	Royal Neth. S. S. Co.	346.0	44.0	15.0	Amst'dam, Holland	Valparaiso, Chile	General	612	3,819	2,632
Antar	5	14.25	5	14.25	6	00.40	6	5.47	British	J. Langdon Rees	420.0	54.0	14.0	Algiers, Algeria	Vancouver, B. C.	Ballast		6,510	4,711
Illinois [1]	5	15.35	5	15.45	6	1.47	6	3.49	American	Texas S. S. Co.	416.0	56.0	21.10	New York, N. Y.	Los Angeles, Calif.	Ballast		7,150	5,330
Dryden	5	16.25	5	17.00	6	12.56	6	14.15	American	Tampa Interocean Co.	434.0	57.6	25.4	Houston, Texas	Manila, Philippines	([16])	7,445	7,983	5,882
Caroni [11] [12]	5	18.00	5	18.25	6	2.25			Venezuelan	Venezuela Gulf Oil Co.	325.0	55.2	9.6	Maracaibo, Venez.	Balboa, C. Z.	Ballast			

[1] Tanker. [8] U. S. Army transport. [9] Motor schooner. [10] Cruiser. [11] To Balboa for dry-docking. [12] Lumber, sulphur, rice, and general. [13] Sulphate, ammonia, tinplate, and general.
[14] Pig iron, steel, and cotton. [15] Cement, paper, and explosives. [16] Cotton, iron, and sulphur.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Benjamin Franklin [17]	29	21.15	30	6.14	30	13.30	30	17.45	Norwegian	Norway-Pacific Line	452.0	59.2	27.9	Vancouver, B.C.	Oslo, Norway	Grain, general	8,150	9,082	6,140
El Panquiaco	29	14.04	30	7.20	30	13.50	30	13.50	Panaman	Panaman Government	125.6	23.5	14.6	Balboa, C. Z	Cristobal, C. Z				
Garachine [18]			30	7.00	30	15.25			Panaman	Panama Gulf Oil Co	49.0	13.6	5.4	Balboa, C. Z	Cristobal, C. Z			27	10
Orleans	30	1.10	30	8.00	30	15.30	30	15.30	American	Quaker Line	395.0	55.0	27.4	San Francisco, Cal.	Wilmington, Del.	Lumber, general	7,818	7,330	5,233
Britte	30	11.00	30	11.45	30	19.32	31	1.00	Swedish	Cia. Maritime Colombia	256.0	39.5	13.7	Buenaventura, Col.	New York, N. Y.	Coffee, hides	639	1,714	1,078
Jadden	30	00.24	30	12.14	30	20.23	30	20.47	American	Roosevelt Line	410 5	55.0	25.6	Melbourne, Austr'a.	Baltimore, Md	Iron ore, wool	5,470	7,496	5,823
Pomona	30	13.00	30	13.38	30	21.30	30	21.30	American	Pomona S. S. Co	440.0	56.0	28.0	Everett, Wash.	Baltimore, Md	Lumber	9,000	8,324	6,036
Hedgehope	30	13.30	30	14.03	30	22.15	30	23.18	British	F. Carrick & Co	385.6	52.5	23.6	Vancouver, B. C.	Fayal [19]	Wheat	7,130	5,590	4,055
Santa Barbara [17]	30	14.00	31	6.14	31	13.20	31	19.05	American	Grace Line	466.0	64.0	25.3	Talcahuano, Chile	New York, N. Y.	General	5,822		
Larry Doheny [1]	30	21.15	31	6.46	31	14.43	31	14.43	American	Richfield Oil Co	430.0	59.0	27.6	Los Angeles, Calif	Baltimore, Md	Gasoline	10,500	7,494	5,198
Nevada	30	21.30	31	7.07	31	16.20	1-1	00.25	French	French Line	419.0	54.0	26.0	Vancouver, B. C.	Le Havre, France	General	7,784	7,500	5,196
Texmar	30	21.45	31	8.37	31	17.10	31	17.10	American	Calmar S. S. Corp	410.5	54.3	25.0	Port Alberni, B.C.	Boston, Mass	Lumber	7,263	6,567	4,909
Edwin Christenson	30	22.00	31	9.19	31	17.35	31	17.35	American	Arrow Line	410.0	54.2	24.0	Portland, Oreg	Baltimore, Md	Lumber	7,597	6,603	4,932
Jamaica	30	23.30	31	9.27	31	18.30	1-4	10.10	British	Pacific Steam Nav. Co	220.0	34.0	11.8	Champerico, Guat.	Cristobal, C. Z	Coffee, general	605	1,187	622
Eendijk	31	3.45	31	10.36	31	19.05	1	4.30	Dutch	N. Pacific Coast Serv.	470.0	58.3	24.0	Vancouver, B. C.	Antwerp, Belgium	General	8,816	8,514	6,066
King Neptune [17]	31	17.25	1-1	6.07	1-1	13.30	1	14.50	British	Dodd-Thomson & Co	400.7	54.8	24.0	Portland, Oreg	Queenstown, Ire.	Wheat	7,450	6,279	4,336
Magdala	31	22.05	1	7.20	1	15.00	1	15.00	British	McClay & McIntire	400.0	52.0	23.9	Tocopilla, Chile	New Orleans, La.	Nitrates	7,050	5,486	4,050
Canadian Highlander	1-1	4.50	1	7.45	1	15.25	1	23.10	British	Can. Nat. Steamships	400.0	52.4	14.0	Auckland, N. Z.	Halifax, N. S.	General	2,328	6,192	4,402
Point Sur	1	6.04	1	9.11	1	16.15	1	16.15	American	Gulf-Pacific Line	324.0	46.2	21.6	Powell River, Wash	New Orleans, La.	[20]	3,473	3,984	2,612
Modavia	1	11.30	1	12.07	1	19.30	1	23.30	British	Donaldson Bros., Ltd.	387.0	53.7	26.6	Victoria, B. C	Glasgow, Scotland	General	5,672	6,719	4,979
Sagadahoc	1	6.21	1	13.16	1	20.40	1	20.40	American	Argonaut S. S. Lines	420.5	54.2	26.0	Portland, Oreg	Baltimore, Md	Lumber	7,245	7,340	5,360
Katrina Luckenbach	1	13.00	1	13.57	1	21.00	1	21.00	American	Luckenbach Line	446.0	51.1	30.6	Portland, Oreg	Boston, Mass	General	9,033	8,508	6,179
Skagerak [1] [17]	1	19.30	2	5.53	2	13.10	2	13.10	German	Atlantic Tank Rhederei	411.6	55.1	26.0	Los Angeles, Calif	Land's End, Eng. [19]	Gasoline	8,245	6,412	4,186
K. R. Kingsbury [1]	1	23.30	2	7.17	2	16.10	2	16.10	American	Standard Oil Co. of Cal.	440.0	58.2	28.0	San Francisco, Cal	New York, N. Y.	Gasoline	9,552	9,033	5,938
Sunoil [1] [17]	2	3.30	2	7.27	2	17.20	2	17.20	American	Sun Oil Co	480.6	66.0	28.7	Los Angeles, Calif	Chester, Pa	Gasoline	13,781	9,610	6,396
Sunbeam [1]	2	4.20	2	7.48	2	17.40	2	17.40	American	Sun Oil Co	429.3	59.0	27.0	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,211	7,709	5,562
Surico	1	16.25	2	8.02	2	18.35	2	18.35	American	Transmarine Lines	324.0	46.2	21.7	Seattle, Wash	Port Newark, N. J.	Lumber	3,437	3,984	2,628
Cid	2	5.30	2	8.20	2	18.52	3	2.20	British	Pacific Steam Nav. Co	264.8	41.2	16.6	Guayaquil, Ecuador	New York, N. Y.	[21]	939	2,746	1,626
Omphale [1]	2	6.00	2	9.08	2	19.15	2	23.23	French	French Line	422.4	57.5	26.0	Los Angeles, Calif	Glasgow, Scotland	Gasoline	9,655	6,781	4,635
Hartbridge	1	22.05	2	9.22	2	19.45	2	19.45	British	Crosby-Magee & Co	390.0	55.0	24.2	Vancouver, B. C.	London, England	Wheat	7,693	6,179	4,521
Aritz Mendi	1	22.10	2	9.38	2	21.06	2	23.30	Spanish	Sota & Aznar	400.0	53.6	25.5	Antofagasta, Chile	Azores [19]	Nitrates	7,560	6,127	4,285
Pearlmoor	1	22.15	2	10.20	2	20.50	2	20.50	British	W. Runciman & Co	400.0	52.0	25.6	Portland, Oreg	Falmouth, England	Wheat	7,254	6,040	4,357
Doricstar	1	22.30	2	10.55	2	21.25	2	21.25	British	Blue Star Line	499.8	64.0	28.6	Seattle, Wash	Hull, England	General	6,988	11,673	8,143
Selvistan	1	23.45	2	11.46	2	22.05	2	23.40	British	Common Brothers	390.0	53.5	25.0	Vancouver, B. C.	Rotterdam, Holland	Wheat	7,033	5,619	4,127

[1] Tanker. [17] Motor ship. [18] Motor schooner. [19] For orders. [20] Lumber, paper, and general. [21] Coffee, cocoa, and ivory nuts.

Kansan	2	1.30	2	12.02	2	22.20	2	22.20	American	Amer.-Hawaiian Line	404.6	53.9	28.6	Portland, Oreg.	Boston, Mass.	General	8,195	6,779	4,927
Karamea [17]	1	21.50	2	14.33	3	00.45	3	00.45	British	Shaw, Savill & Albion	483.0	64.2	27.0	Pt. Chalmers, N. Z.	London, England	Frozen, general	8,280	11,729	8,373
Pacific Exporter [17]	2	00.10	2	16.56	3	11.50	3	17.20	British	Furness, Withy & Co	435.9	60.2	27.0	Vancouver, B. C.	London, England	General	8,367	9,633	6,998
Crowl [22]			2		2				American	U. S. Army				Balboa, C. Z.	Gatun Lake, C. Z.				
Pacific Redwood	2	5.45	3	4.50	3	13.50	3	13.50	American	Dimon S. S. Corp.	409.0	54.2	24.0	Tacoma, Wash.	New York, N. Y.	Lumber	7,092	6,537	4,840
Nebraska	2	6.00	3	6.11	3	14.10	3	14.10	British	Royal Mail S. P. Co.	450.2	58.3	26.3	Vancouver, B. C.	Rotterdam, Holland	General	6,571	8,878	6,583
Flensberg	2	20.15	3	7.41	3	15.40	3	15.40	Dutch	Halcyon S. S. Co.	454.7	60.1	25.6	Vancouver, B. C.	Rotterdam, Holland	Wheat	9,650	8,068	5,983
Greylock	2	21.30	3	8.30	3	16.50	3	21.10	American	Seas Shipping Co.	430.7	54.3	28.6	Vancouver, B. C.	Avonmouth, Eng.	General	9,343	7,946	5,698
Atreus	3	5.00	3	9.23	3	18.10	3	18.10	Greek	Rethymnis & Kuluk'dis	370.3	50.3	25.2	Iquique, Chile.	Azores [19]	Nitrates	6,500	5,069	3,698
Portland [17]	3	5.30	3	9.50	3	19.15	3	22.25	German	Hamburg-American Line	462.2	51.2	26.0	Vancouver, B. C.	Hamburg, Germany	General	7,316	9,139	6,666
Pat Doheny [1]	3	9.30	3	10.50	3	21.05	3	21.05	American	Richfield Oil Co.	430.2	59.2	27.2	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,138	7,978	5,840
Atlantic City	3	6.00	3	11.58	3	21.00	4	00.15	British	Sir. W. R. Smith & Sons.	411.7	54.5	27.8	Vancouver, B. C.	Hamburg, Germany	Wheat	9,020	6,555	4,659
Harry Luckenbach	3	10.30	3	13.30	3	21.00	3	21.55	American	Luckenbach Line	448.9	60.2	29.0	Seattle, Wash.	Mobile, Ala.	Lumber, general.	8,300	9,282	6,853
Willbabco	3	14.00	3	14.50	3	23.05	3	23.05	American	Williams S. S. Line	468.5	58.5	28.6	Portland, Oreg.	Charleston, S. C.	Lumber, general.	9,416	8,460	6,162
Forthbridge	3	16.15	4	3.25	4	11.47	4	12.44	British	Seaboard Sales Corp.	390.0	54.8	25.0	Vancouver, B. C.	New York, N. Y.	Lumber	7,500	6,246	4,627
Sutermco	3	18.10	4	3.35	4	12.40	4	12.40	American	Transmarine Lines	324.0	46.2	23.2	Vancouver, B. C.	New York, N. Y.	Lumber	3,990	3,984	2,628
Caldas [17]	3	18.00	4	4.20	4	13.50			Colombian	National Navigation Co.	116.0	21.0	10.0	Buenaventura, Col.	Cristobal, C. Z.	General	247	211	124
El Lobo [1]	3	17.50	4	5.18	4	14.10	6	8.30	British	C. T. Bowring & Co.	385.2	51.0	23.0	Lobitos, Peru.	Philadelphia, Pa.	Crude oil	6,217	4,851	3,326
Erica	2	21.25	4	5.49	4	15.55	4	17.15	Italian	A. Lauro	384.7	48.6	24.6	Antofagasta, Chile.	Azores [19]	Nitrates	6,891		
Plow City	4	00.20	4	5.54	4	14.55	4	14.55	American	Charles Nelson & Co.	324.0	46.2	24.6	Seattle, Wash.	Baltimore, Md.	Lumber, general.	4,645	3,983	2,621
Sylvafield [1] [17]	2	9.30	4	6.56	4	16.35			British	Hunting & Son	395.0	52.5	25.0	Los Angeles, Calif.	Rouen, France	Benzine	7,507	5,900	2,993
Francis E. Powell [1]	4	3.35	4	8.06	4	18.00	4	18.00	American	Atlantic Refining Co.	431.0	59.2	26.6	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,554	7,869	5,101
George H. Jones [1]	4	3.50	4	9.15	4	19.15	4	19.15	American	Standard Shipping Co.	429.0	59.2	26.6	Los Angeles, Calif.	New York, N. Y.	Gasoline	10,808	7,689	5,667
M. F. Elliott [1]	4	5.55	4	10.17	4	19.50	4	19.50	American	Standard Shipping Co.	425.0	57.2	27.0	Los Angeles, Calif.	New Orleans, La.	Gasoline	9,238	7,481	4,946
Poseidon	4	7.30	4	11.40	4	21.25	5	11.10	German	Hamburg-American Line	450.7	57.2	26.9	Talcahuano, Chile.	Hamburg, Germany	General	8,790	7,684	5,234
Canadian Explorer	3	17.00	4	13.48	4	23.10	4	23.25	British	Can. Nat. Steamships	413.0	52.0	27.0	Sydney, Australia	Halifax, N. S.	Lumber, general.	4,427	5,853	4,058
Galveston [23]	4	21.20	5	00.22	5	9.08	5	12.15	American	U. S. Navy	292.0	44.0		High seas	Cristobal, C. Z.				
Oregonian	4	17.00	5	00.36	5	11.56	5	11.56	American	Amer.-Hawaiian Line	404.6	54.0	27.0	Seattle, Wash.	Boston, Mass.	General	6,730	6,754	4,800
Port Auckland	4	22.55	5	2.02	5	13.20	5	16.50	British	Cunard Line	480.8	62.4	27.0	Hobart, Tasmania	London, England	Frozen, general.	8,216	10,862	8,192
Hvoslef	5	7.00	5	7.43	5	14.28	7	12.00	Norwegian	United Fruit Co.	255.1	35.5	14.0	Pto. Armuelles, R.P.	Cristobal, C. Z.	Ballast		1,686	892
La Perla	5	8.15	5	9.06	5	18.00			American	United Fruit Co.	325.2	48.1	19.1	San Francisco, Cal.	Port Limon, C. R.	General	688	4,033	2,261
Hartford	5	7.45	5	11.54	5	19.15	5	19.15	British	Federal Steam. Nav. Co.	520.7	64.2	21.2	Lyttleton, N. Z.	Liverpool, England.	Frozen, general.	5,903	12,933	9,264
Salvador	5	12.05	5	13.00	5	20.35			British	Pacific Steam Nav. Co.	215.0	33.5	17.7	Champerico, Guat.	Cristobal, C. Z.	([24])	928	1,270	735

[1] Tanker. [22] Launch. [23] Cruiser. [24] Coffee, silver, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
December 30	Toloa	United Fruit Co	Port Limon, Costa Rica.
December 30	Bowden	United Fruit Co	Mobile, Ala.
December 31	Fylgia [25]	Swedish Government	Karlskrona and wayports.
December 31	Calamares	United Fruit Co	New York via Habana.
December 31	Macabi	United Fruit Co	Puerto Colombia.
January 1	Ancon	Panama Railroad S. S. Line	New York via Haiti.
January 2	Gatun	Standard Fruit & S. S. Co	New Orleans, La.
January 2	Ariguani	Elders & Fyffes, Ltd	Avonmouth via wayports.
January 2	Metapan	United Fruit Co	New York via Kingston.
January 3	Marga	Colombus S. S. Co	Baltimore, Md.
January 3	Inapaquina [26]	United Fruit Co	Colon, R. P.
January 4	Suriname	United Fruit Co	New Orleans, La.
January 4	Coppename	United Fruit Co	Puerto Colombia.
January 4	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
January 5	Nevisian	Leyland Line	Liverpool via wayports.
January 5	Cartago	United Fruit Co	New Orleans and Habana.
January 5	Bowden	United Fruit Co	Perme, R. P.
January 5	Anachucuna [26]	United Fruit Co	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
December 30	Duchess of Bedford	Canadian Pacific S. S. Co	New York via wayports.
December 30	Orinoco	Hamburg-American Line	Cartagena, Colombia.
December 30	Toloa	United Fruit Co	New York via Habana.
December 30	Catherine	Bull Insular Line	New York via Habana.
December 31	Denver [25]	U. S. Navy	Bluefields, Nicaragua.
December 31	Heredia	United Fruit Co	New Orleans and wayports.
December 31	Bowden	United Fruit Co	Perme, R. P.
January 2	Merdian	Leyland Line	Cartagena, Colombia.
January 2	Calamares	United Fruit Co	Port Limon, Costa Rica.
January 2	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
January 2	Macabi	United Fruit Co	New York via Kingston.
January 3	Inapaquina [26]	United Fruit Co	Colon, R. P.
January 3	Metapan	United Fruit Co	New York via wayports.
January 3	Ariguani	Elders & Fyffes, Ltd	Avonmouth and wayports.
January 3	Marga	Columbus S. S. Co	Maracaibo, Venezuela.
January 4	Coppename	United Fruit Co	New Orleans, La.
January 4	Gatun	Standard Fruit & S. S. Co	New Orleans and Puerto Cabezas.
January 4	Suriname	United Fruit Co	Port Limon and Bocas.
January 5	Anachucuna [26]	United Fruit Co	Colon, R. P.
January 5	Bowden	United Fruit Co	Mobile, Ala.

[25] Cruiser. [26] Motor boat.

PORT OF BALBOA.

January 1	Bokuyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
January 2	Big Bill [27]	H. Elliot	Darien, R. P.
January 2	A. B. de O'Barrio [27]	Pacific Fruit Co	Bayano River, R. P.
January 2	Dos Hermanos [27]	A. Valdez	Bayano River, R. P.
January 2	H. M. Storey	Standard Oil Co. of California	Los Angeles, Calif.
January 3	Rakuyo Maru	Nippon Yusen Kaisha	Hongkong, China.
January 3	Mariner [28]	John Barrymore	Los Angeles, Calif.
January 4	San Luis [27]	Chiriqui Land Co	Puerto Armuelles, R. P.

January 2	Bokuyo Maru	Nippon Yusen Kaisha	Hongkong, China.
January 2	Big Bill [27]	H. Elliot	Panama Bay, R. P.
January 2	A. B. de O'Barrio [27]	Pacific Fruit Co	Bayano River, R. P.
January 2	Dos Hermanos [27]	A. Valdez	Bayano River, R. P.
January 4	H. M. Storey	Standard Oil Co. of California	Los Angeles, Calif.
January 4	Rakuyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.

[27] Motor schooner. [28] Yacht. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., January 16, 1929. No. 24.

Canal Traffic During the First Fifteen Days of January.

During the first 15 days of January, 289 commercial vessels and 6 small launches transited the Canal. Tolls on the commercial vessels aggregated $1,192,037.39, and on the launches, $79.50, or a total tolls collection of $1,192,116.89.

The daily average of transits of commercial vessels was 19.26 and the daily average tolls collection, $79,469.16. The average amount of tolls paid by each of the commercial transits was $4,124.70, as compared with $4,229.70 for the first 15 days of December.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the 6½ months of the current fiscal year, with the daily averages of transits and tolls:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January (first 15 days)	289	1,192,037.39	19.26	79,469.16
Totals	3,474	14,555,332.62	17.47	73,142.38

Night Transits Through Canal During Lock Overhaul.

BALBOA HEIGHTS, C. Z., *January 7, 1929.*

MEMORANDUM FOR ALL STEAMSHIP AGENTS:

The regular periodic overhaul of Miraflores and Pedro Miguel Locks began on January 2, and will continue until completed, about May 7. During this period the Canal will be in operation 24 hours daily, necessitating night transits for such vessels as can not be accomodated during daylight hours.

It has come to the attention of this office, during the first few days of continuous operation, that Masters of several vessels (scheduled to make night transits), after beginning of transit have refused to proceed through Gaillard Cut, making it necessary for the vessel either to anchor in Gatun Lake, if southbound, or tie up at Pedro Miguel or one of the nearby mooring stations, if northbound, thus not only confusing prearranged schedules and delaying through traffic by these partial transits, but also in some instances causing congestion of the available space in the Canal prism.

In view of the above situation, notice is hereby given that effective January 14, and until the completion of lock overhaul, no vessel will be scheduled for night transit unless the Agent of same assures the Port Captain, in writing, that the vessel will complete her transit as scheduled.

Vessels desiring only partial transit will be handled as previously, after all through traffic has been dispatched.

C. H. WOODWARD,
Marine Superintendent.

Approved:
H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, January 12, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Julia Luckenbach	5	21.58	6	6 30	6	13 52	6	15.45	American	Luckenbach Line	436 0	57 2	23 0	New Orleans, La.	Tacoma, Wash	General	5,268	8,543	6,402
Willwello	12	29 9 30	6	6 25	6	16 17			American	Williams S. S. Line	409 8	51 2	25.5	New York, N. Y.	Seattle, Wash	General	8,158	6,821	4,927
American	1-6	3 50	6	7 35	6	14 54	6	15 45	American	Amer.-Hawaiian Line	404 6	53 9	19 0	Boston, Mass	Portland, Oreg	General	3,011	6,777	4,761
Svealand [2]	6	3 40	6	8.23	6	17.18	6	21 52	Swedish	Ore S. S. Corp	561.0	72 0	20 3	Baltimore, Md	Cruz Grande, Chile	Ballast		15,425	4,421
Agwistone [1]	6	6 00	6	8.40	6	18 22	6	19 23	American	Standard Oil Co	500 0	68 1	21 0	New York, N. Y	Los Angeles, Calif	Ballast		10,653	7,804
Atland	6	7 05	6	9.50	6	19 25	7	00 30	Swedish	Axel Brostrom & Son	388 8	52 3	18 0	So. Shields, Eng	Arica, Chile	Ballast		5,631	3,343
Dochet	6	8.42	6	11 25	6	20 33	6	21 52	American	Redwood Line	386 8	52 0	23 8	New Orleans, La	Los Angeles, Calif	General	6,500	5,705	4,167
Kinderdijk	5	15.45	6	12.38	6	21 40	6	22 38	Dutch	Holland-American Line	469 4	58 4	19 11	Antwerp, Belgium	Vancouver, B. C.	Bananas, general	2,089	8,515	6,060
Cali	12	28 12 05	6	14.00	6	21 50	6	23 56	German	North German Lloyd	216 5	32 9	13 0	Cristobal, C. Z	Buenaventura, Col.	General	398	1,105	698
Paris City	1-6	6 55	6	13 50	6	22.45	6	23 50	British	Empire Shipping Co	412 2	55 0	17 0	Hull, England	Vancouver, B. C.	Ballast		6,673	4,764
Feltre [2]	5	13 55	6	14 40	6	23 40	7	00 40	Italian	Nav. Libera-Tri stina	430 0	55 5	29.0	Trieste, Italy	Vancouver, B. C.	General	3,293	7,795	6,041
Mayebashi Maru	6	10 48	6	15 30	7	09 51	7	2 00	Japanese	Nippon Yusen Kaisha	445 0	58 9	24 8	Boston, Mass	Kobe, Japan	(5)	7,352	8,012	5,749
Indiana	6	14 25	6	16 00	7	1 45	7	2 49	British	Wessel, Duval & Co	402 0	52 2	17 0	Philadelphia, Pa.	Callao, Peru	Coal and coke.	2,373	5,634	4,172
R. D. Leonard [1]	6	18 10	6	19 23	7	3.09	7	8 11	American	Union Oil Co	265 9	39 2	19 0	Philadelphia, Pa	San Francisco, Cal.	(6)		1,936	1,304
Courageous [2]	6	17 50	6	21 05	7	6 01	7	16 56	American	Roosevelt S. S. Co., S. B.	456 0	56 0	27 0	New York, N. Y.	Honolulu, T. H.	General	7,456	8,308	5,850
Orkanger [1] [2]	6	23.25	7	6 35	7	13 09	7	14 20	Norwegian	Westfal, Larsen & Co	457 0	59 10	29.0	Avonmouth, Eng.	Los Angeles, Calif	Ballast		8,291	5,822
El Pamplinco [1]			7	6 10	7	14 10	8	23 00	Panaman	Panaman Government	125 0	23 0		Cristobal, C. Z	Balboa, C. Z	Ballast		288	101
Esparta	7	4 40	7	6 35	7	14 12	7	15 16	American	United Fruit Co	330 6	46 6	18 8	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee.	666	3,673	2,367
Farnworth	7	8 50	7	10 05	7	18 08	7	19 10	British	R. S. Dalgliesh & Co.	401 5	53 5	15 0	No. Shields, Eng	Vancouver, B. C	Ballast		5,580	3,688
Riverton	7	10 08	7	10 20	7	19 20	7	20 45	British	R. Chapman & Son	409 0	54 0	18 0	Pto. Ferrajo, Italy	San Francisco, Cal.	Ballast		5,761	4,129
Roseric	7	10.15	7	11 15	7	20 35	7	21.45	British	Andrew Weir & Co	405 2	52 0	25 0	Philadelphia, Pa.	Shanghai, China	General	6,824	6,565	5,141
Hvoslef	5	14.28	7	12 09	7	20 45	7	21 45	Norwegian	Aktieselskabet Hav.	255 0	35 6	15 3	Cristobal, C. Z	Puntarenas, C. R.	General	1,200	1,686	892
Ecuador	6	4.35	7	12 20	7	21 45	8	2.00	American	Panama Mail S. S. Co.	380.6	48 7	24 11	New York, N. Y	San Francisco, Cal.	General	2,512	5,926	4,178
Canadian Commander	7	11.55	7	16 00	7	23 06	8	00.25	British	Can. Nat. Steamships	400.0	52.0	21 3	Halifax, N. S.	Adelaide, Australia	General	3,558	5,914	4,195
Hampton Roads [2]	7	18.15	7	20.30	8	3 32	8	4.34	American	Atlantic Refining Co	430.0	59.2	19.0	Philadelphia, Pa.	La Libertad, Ecd'r.	Ballast		8,093	5,347
Gen. Wm. M. Graham [4]			7	9.39	7	18 10			American	U. S. Army	156 0	32 0		Cristobal, C. Z	Balboa, C. Z	Ballast			
Persephone [1] [2]	7	19.35	8	6.20	8	17 54	8	23.00	Danzig	Baltic-Amer. Pet. Co.	468 6	63 2	19 0	Rotterdam, Holland	Talara, Peru	Ballast		9,336	6,338
West Mingo	7	23.05	8	6.30	8	19 05	8	23 10	American	Calif. & Eastn S. S. Co.	410 0	54 4	29 0	Philadelphia, Pa	Seattle, Wash	General	3,661	6,476	4,682
West Cassata [2]	7	23.40	8	7 25	8	21 08	9	16.30	American	Roosevelt S. S. Co., S. B.	410 0	54 0	22 10	New York, N. Y	Fremantle, Aust'lia	(7)		6,486	4,880
Steel Seafarer	8	5 40	8	7 15	8	22.05	9	5 38	American	Isthmian S. S. Lines	425 0	55 0	25.4	Philadelphia, Pa.	Singapore, Str. Set.	General	8,015	7,611	5,454
Missourian [2]	8	6 15	8	8 25	8	23.06	9	4.46	American	Amer.-Hawaiian Line	445 0	59 8	20 0	Boston, Mass	Tacoma, Wash	General	2,005	8,567	6,020
Robin Goodfellow	8	8.20	8	9.35	9	00 23	9	7.49	American	Seas Shipping Co	420.0	55.0	27.0	Baltimore, Md	Tacoma, Wash	General	8,893	7,473	5,536
Lina L. D	8	9.35	8	10.45	9	1.18	9	2.34	French	Flood Brothers	420.0	54.0	26.0	Antwerp, Belgium	Seattle, Wash	General	9,019	7,075	5,301

[1] Tanker. [2] Motorship. [3] U. S. Army transport. [4] Mine planter. [5] Steel sheets, cotton, and general. [6] 13,787 barrels of lubricating oil. [7] Case oil and general.

Port Bowen	8	8.30	8	14.05	9	2.22	9	3.30	British	Com'lth & Dom. Line	480.0	62.0	30.4	Glasgow-England	Pt. Chalmers, N.Z.	General	7,969	10,745	7,849
Doris [8]			8		8	16.06			American	United Fruit Co				Cristobal, C. Z	Gatun, C. Z.	Unknown		7	7
Gen. G. W. Getty [9]			8	7.30	8	17.52			American	U. S. Army	89.0	22.0		Cristobal, C. Z	Balboa, C. Z	Ballast			
Breda	8	6.08	9	6.20	9	13.58	9	1.25	Dutch	Royal Neth. S. S. Co	402.6	58.3	20.0	Hamburg,Germany	Corral, Chile	General	3,056	7,384	4,769
Horsburg [12]	7	1.50	9	6.15	9	17.24	11	10.10	British	Santa Maria S. S. Co	207.5	33.6	14.0	Rotterdam,Holland	Los Angeles, Calif	Ballast		1,159	556
Loreto [2]	8	6.55	9	6.10	9	16.56	10	00.35	British	Pacific Steam Nav. Co	405.0	54.0	22.0	Hull, England	Valparaiso, Chile	([10])	4,763½	7,334	5,037
Bethore	8	7.30	9	7.10	9	18.06	9	19.00	American	Ore S. S. Corp	550.0	72.0	21.5	Newport News, Va	Cruz Grande, Chile	Ballast		15,476	4,354
Theodore Roosevelt [2]	8	17.20	9	7.30	9	19.16	11	13.42	Norwegian	Fred Olsen & Co	425.0	55.0	18.3	Oslo, Norway	Vancouver, B. C.	Cement, general	3,460	7,593	5,637
Ellaston	8	21.20	9	8.20	9	20.57	10	2.23	British	Texas Oil Co	347.0	50.0	25.0	Port Arthur, Texas	Shanghai, China	([11])	6,909	5,202	3,840
Osterland	9	7.00	9	8.35	9	20.28	9	21.34	Swedish	Axel Brostrom & Son	346.0	51.0	13.6	Tyne, England	Vancouver, B. C.	Ballast		4,716	3,359
Americanstar	9	3.20	9	10.50	9	22.14	9	23.30	American	Charles Nelson & Co	386.8	52.2	21.1	Charleston, S. C	Tacoma, Wash	General	5,196	5,699	4,167
Princess Norah	9	7.55	9	11.05	9	22.44	10	7.28	British	Can.-Pacific R. R. Co	250.0	48.0	16.0	Glasgow-England	Victoria, B. C	Ballast		1,190	1,642
K. I. Luckenbach	9	4.15	9	11.05	9	23.17	10	00.30	American	Luckenbach Line	446.0	56.0	24.0	New York, N. Y	Tacoma, Wash	General	3,939	8,552	6,236
Massmar	9	8.00	9	13.20	10	00.25	10	1.37	American	Calmar S. S. Co	385.0	51.0	26.0	Philadelphia, Pa	Seattle, Wash	Steel, general	7,634	6,242	4,471
Pakipaki	9	11.35	9	14.50	10	1.30	10	3.00	British	Norton, Lilly & Co	471.0	60.8	23.6	New York, N. Y	Adelaide, Australia	General	5,085	9,150	6,886
Kelvinia	9	17.15	9	17.45	10	2.32	10	3.20	British	General S. S. Co	435.6	57.7	17.0	No. Shields, Eng	Los Angeles, Calif	Ballast		7,858	5,517
Mystic	9	17.30	9	17.45	10	3.34	10	4.47	American	Munson, McCor'k Line	400.7	54.2	23.0	Baltimore, Md	Los Angeles, Calif	General	6,030	6,623	4,668
Kia Ora	9	14.35	9	20.55	10	5.12	10	6.25	British	Shaw, Savill & Albion	448.3	56.0	28.8	Antwerp, Belgium	Auckland, N. Z	Basic slag	4,980	8,237	5,771
Santa Elisa	9	21.20	10	6.20	10	12.58	10	17.00	American	Grace Line	360.8	51.7	23.11	New York, N. Y	Talcahuano, Chile	General	2,527	5,057	4,325
Mimer	9	18.15	10	6.20	10	14.09	10	17.20	Norwegian	Thorvik & Gjerpen	228.8	35.2	17.0	Tampico, Mexico	Valparaiso, Chile	Asphalt	1,428	1,308	887
Dercche [1]	9	00.05	10	6.00	10	17.27	10	18.25	American	Union Oil Co	435.0	56.0	20.3	Cristobal, C. Z	Los Angeles, Calif	Ballast		7,452	5,199
Wilboro	10	3.05	10	7.20	10	18.30	10	20.00	American	Williams S. S. Line	414.7	55.6	23.0	New London, Conn	Seattle, Wash	General	8,050	7,717	5,763
San Manuel [1]	10	6.12	10	7.20	10	19.45	11	00.02	British	Anglo-Mexican Pet. Co	407.0	52.3	21.0	Falmouth, England	Los Angeles, Calif	Ballast		6,183	4,343
Ani	10	7.28	10	8.30	10	22.16	11	00.02	Belgian	Brit. & So. Pac. Tr. Co	400.0	52.1	18.0	Cardiff, England	Arica, Chile	Ballast		6,617	4,792
Quebec City	9	21.50	10	8.45	10	21.18	10	22.25	British	Reardon Smith Line	415.0	54.3	14.0	Lisbon, Portugal	Vancouver, B. C.	Ballast		7,004	5,405
City of Panama [2]	1-28	16.05	10	10.10	10	19.45	10	22.52	Panaman	Panama Mail S. S. Co	296.9	46.0	22.8	Cristobal, C. Z	San Francisco, Cal.	General	3,204	3,818	2,603
Feodosia	1-10	00.45	10	10.10	10	21.01	10	22.00	German	Hamburg-AmericanLine	337.0	48.3	23.0	Hamburg,Germany	Champerico, Guat	General	4,884	4,316	3,142
Bolivia	10	8.45	10	11.20	10	23.20	11	00.30	Danish	Orient S. S. Co	398.7	56.0	16.0	Rotterdam,Holland	Vancouver, B. C.	Ballast		7,133	5,263
Narenta	8	11.43	10	13.11	11	00.26	11	1.42	British	Royal Mail S. P. Co	450.0	58.0	23.7	Rotterdam,Holland	Vancouver, B. C.	Bananas, general	4,504	8,856	6,559
Holystone	10	10.10	10	14.20	11	1.35	11	3.03	British	Common Brothers	397.3	54.0	15.0	Genoa, Italy	Vancouver, B. C.	Ballast		5,843	4,268
Henry S. Grove	10	10.35	10	14.30	11	2.42	11	7.19	American	Argonaut S. S. Co	404.0	54.0	27.0	Baltimore, Md	Seattle, Wash	General	7,879	6,755	4,688
Mayari	10	14.35	10	20.25	11	5.28	11	6.55	Panaman	United Fruit Co	303.0	47.0	18.8	Bocas del Toro	Pto. Armuelles, R. P.	General	2,069	3,014	1,742
Ryufuku Maru	10	18.05	10	20.20	11	4.26	11	6.07	Japanese	Kokusai Kisen Kaisha	385.0	51.0	25.0	Galveston, Texas	Yokohama, Japan	General	5,575	5,919	4,400
Osiris [2]	11	1.05	11	6.15	11	17.58	11	21.25	German	Hamburg-AmericanLine	376.0	51.0	23.0	Hamburg,Germany	Portland, Oreg	General	5,351	5,788	4,023
Tiger [1]	11	5.40	11	6.40	11	18.58	11	20.00	American	Standard Transp. Co	410.0	56.8	22.0	New York, N. Y	Los Angeles, Calif	Ballast		8,201	6,207
Caldas	4	14.10	11	6.07	11	14.45	11	21.25	Colombian	National Navigation Co	116.0	21.0	12.8	Cristobal, C. Z	Buenaventura, Col.	General	181	211	124
California	11	6.15	11	7.15	11	14.42	12	1.47	American	Panama-Pacific Line	574.4	80.3	27.5	New York, N. Y	San Francisco, Cal.	General	1,913	24,506	17,565
Rochester [12]	10	22.35	11	8.05	11	20.00			American	U. S. Navy	380.0	64.0	26.8	Cristobal, C. Z	Balboa, C. Z	Ballast			
W. H. Libby [1]	11	11.30	11	11.38	11	21.05	11	22.30	American	Standard Shipping Co	462.0	60.2	20.0	New York, N. Y	San Francisco, Cal.	Ballast		8,461	6,104
Parthenia	10	11.20	11	13.50	11	22.21	11	23.30	British	Donaldson Bros., Ltd	400.0	52.0	19.3	Glasgow-England	Vancouver, B. C.	Bananas, general	1,306	5,831	4,341
Lycia [2]	11	12.10	11	14.05	11	22.26	12	7.49	British	Canadian Transp. Co	300.5	44.2	22.0	Santiago, Cuba	San Francisco, Cal.	Sugar	4,270	3,333	2,207
Cerigo	9	17.05	12	6.05	12	16.01	12	22.10	German	Hamburg-AmericanLine	227.0	34.4	14.6	Cristobal, C. Z	Guayaquil,Ecuador	General		224	1,572	1,011
Charles Christenson	11	21.10	12	6.25	12	15.59	12	17.20	American	Arrow Line	409.7	54.0	19.0	Jacksonville, Fla	Portland, Oreg	General	4,280	6,693	4,915
Sagama River	11	21.30	12	7.25	12	17.53	12	19.10	British	Holder Brothers	385.0	52.0	14.0	Manchester, Eng	Arica, Chile	Ballast		5,237	3,837

[1] Tanker. [8] Launch. [9] Tug. [10] Iron, cement, and general. [11] Case oil, and general. [12] Cruiser.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Drakepool	12	6.55	12	8.20	12	19.10	12	20.10	British	Sir. R. Ropner & Co	390.0	55.6	14.0	Oran, Algeria	Vancouver, B. C.	Ballast		5,990	4,199
Georgios	12	7.15	12	9.45	12	19.13	12	20.20	Greek	Anglo-Chilean Co	360.0	51.9	14.0	Genoa, Italy	Arica, Chile	Ballast		4,776	3,433
Hesperos	12	11.47	12	12.00	12	20.10	13	00.44	Norwegian	Bruusgaard Kiosterud	390.0	54.1	24.0	Antwerp, Belgium	Vancouver, B. C.	General	6,828	5,693	4,230
Cape Ortegal	12	9.48	12	12.50	12	21.15	12	22.50	British	Dominion Iron & Steel	405.0	52.2	25.0	Sydney, N. Scotia	Vancouver, B. C.	(14)	7,056	5,650	4,071
Steel Exporter	12	12.55	12	13.35	12	22.30	13	5.40	American	Isthmian S. S. Lines	424.2	56.2	24.8	Mobile, Ala	Shanghai, China	Steel, general	8,312	7,611	5,450
Amerikaland [15]	12	15.15	12	15.25	12	23.30	13	4.12	Swedish	Ore S. S. Corp	561.0	72.0	22.2	Baltimore, Md	Cruz Grande, Chile	Ballast		15,560	4,496
Sunewco	12	18.05	12	18.15	13	2.10	13	3.22	American	Transmarine Lines	324.0	46.0	23.0	Mobile, Ala	Seattle, Wash	General	4,400	3,984	2,612
No. 2 [13]			12		12	11.16			Panaman	A. Clop				Cristobal, C. Z	Gatun, C. Z	Unknown		12	12

[13] Barge. [14] Steel rails, etc.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Saint Jean	5	14.20	6	2.35	6	11.00	7	6.00	French	French Line	415.0	50.3	25.3	Valparaiso, Chile	Le Havre, France	General	6,936	5,849	4,101
Fordefjord	5	17.00	6	3.40	6	12.45	6	12.45	Norwegian	Norway-Amerika Line	378.8	50 0	26 2	Iquique, Chile	Baltimore, Md	Nitrates	7,737	5,672	4,134
Mary Ellen O'Niel [1] [15]	5	9.45	6	4.19	6	13.55	6	13.55	American	Texas S. S. Co	509.7	70.3	30 3	Los Angeles, Calif	Philadelphia, Pa	Gasoline	17,500	12,425	8,338
S. C. T. Dodd [1]	5	14.20	6	5.27	6	15.05	6	20.15	American	Standard Oil Co. of Cal	425.0	57.2	27 6	Los Angeles, Calif	New York, N. Y	Gasoline	9,131	7,481	4,975
Eleanor Christenson	6	00.15	6	6.26	6	16.05	6	16.05	American	Christenson S. S. Co	405.0	54.3	24.6	Portland, Oreg	Baltimore, Md	Lumber	7,270	6,573	4,788
Alfonso Perez	6	3.06	6	8.13	6	18.05	6	20.10	Spanish	Angel F. Perez	410.6	54.1	22.6	Vancouver, B. C.	Lisbon, Portugal	Wheat	7,346	6,229	4,512
Gen. G. W. Getty [16]			7	6.12	7	15.10			American	U. S. Army	98.0	22.0		Balboa, C. Z	Cristobal, C. Z				
Magicstar	6	18.00	7	6.50	7	15.10	7	15.10	British	Blue Star Line	420.0	54.0	25.4	N. Westminster, B.C.	Newcastle, Eng.	Lumber, general	5,462	7,352	5,510
Castle Town	6	20.20	7	6.59	7	15.55	7	17.25	American	Charles Nelson & Co	321.0	50.0	21.6	Seattle, Wash	Philadelphia, Pa.	Lumber, general	4,543	3,872	2,568
Lavington Court	6	23.00	7	7.18	7	17.30	7	18.50	British	Haldin & Co	420.0	54.0	28.0	Portland, Oreg	United Kingdom	Wheat	9,526	6,833	4,953
Ebro	7	13.00	7	14.02	7	21.15	8	1.35	British	Pacific Steam Nav. Co	450.3	57.8	25.4	Talcahuano, Chile	New York, N. Y	General	3,277	9,291	6,301
Guatemala	7	2.50	7	14.12	7	22.15	9	3.30	American	Panama Mail S. S. Co.	360.2	51.5	22.5	San Francisco, Cal.	New York, N. Y	General	2,471	5,776	4,081
Robin Adair	8	00.20	8	3.04	8	11.05	8	11.05	American	Seas Shipping Co	424.8	55.2	25.1	Tacoma, Wash	Newark, N. J	Lumber	7,371	7,470	5,529
Charlton Hall	8	3.06	8	5.06	8	13.33	8	15.19	American	U. S. Steel Products Co.	400.0	50 0	26 2	Tocopilla, Chile	Pensacola, Fla.	Nitrates	7,100	5,774	4,175
Trelcske	8	3.10	8	5.38	8	14.35	8	17.40	British	Foster, Hain & Read	400.2	52.1	24.0	Iquique, Chile	Lake Charles, La	Nitrates	7,550	5,767	4,319
Virginia	7	10.20	8	6.39	8	15.05	8	15.42	American	Panama-Pacific Line	586.4	80 3	29.6	San Francisco, Cal.	New York, N. Y.	(17)	7,855	25,254	18,160
Lincoln Ellsworth [1] [15]	8	3.10	8	8.10	8	17.00	8	17.00	Norwegian	T. Dannevig & Co	381.3	55 2	25.2	Los Angeles, Calif	London, England	Gasoline	7,640	5,786	3,627
Saint Joseph	8	7.02	8	8.17	8	18.35	9	13.14	French	French Line	397.9	51.0	25.0	San Antonio, Chile	Le Havre, France	Nitrates, general	7,413	6,025	4,187
Spreewald [15]	8	6.15	8	10.30	8	19.35	9	00.47	German	Hamburg-American Line	399.6	54.2	26.0	Corral, Chile	Hamburg, Germany	General	8,176	6,791	4,997
Caroline Maersk [1] [15]	8	7.30	8	12.18	8	21.10	8	21.10	Danish	Anglo-Saxon Pet. Co	456.8	59.7	26.3	Los Angeles, Calif	Land's End, Eng	(18)	11,259	8,102	5,695
Perene	8	9.35	8	12.57	8	22.35	9	23.10	Peruvian	Peruvian Line	270.0	39 0	18.0	Callao, Peru	New York, N. Y.	General	2,383	2,168	1,529
Deroche [1]	8	13.45	8	14.28	9	00.05	9	6.00	American	Union Oil Co. of Calif	435.0	56.0	29.3	Los Angeles, Calif	Cristobal, C. Z	Fuel oil	11,000	7,452	5,199

[1] Tanker. [15] Motor ship. [16] Tug. [17] Canned goods and general. [18] Gasoline and white spirits.

Koranton[1]	8	16.15	9	2.42	9	11.25	9	11.25	British	R. Chapman & Son	412.6	53.5	27.6	Vancouver, B. C.	Hamburg, Germany	Wheat	9,570	6,811	4,810
Andrea F. Luckenbach	8	23.30	9	3.03	9	12.30	9	12.30	American	Luckenbach Line	496.0	68.2	29.0	Portland, Oreg.	Boston, Mass.	Lumber, general	9,575	11,487	8,762
Californian[15]	9	2.20	9	5.00	9	13.10	9	13.10	American	Amer.-Hawaiian Line	445.0	59.8	29.3	San Francisco, Cal.	Boston, Mass	General	10,813	8,567	6,020
Canadian Seigneur	9	3.15	9	6.17	9	14.50	9	17.40	British	Can. Nat. Steamships	400.0	52.3	24.0	Vancouver, B. C.	Halifax, N. S.	Lumber, general	5,964	5,983	4,182
Tremeadow	8	23.55	9	6.45	9	15.45	9	19.20	British	Hain S. S. Co	400.1	52.2	24.0	Vancouver, B. C.	Hamburg, Germany	Wheat	7,092	5,977	4,091
Cerigo	9	6.20	9	8.18	9	17.05	12	6.05	German	Hamburg-American Line	227.2	34.4	13.8	Guayaquil, Ecuador	Cristobal, C. Z.	[19]	647	1,572	1,011
Almelo	9	10.10	9	10.59	9	19.23	9	22.40	Dutch	Royal Neth. S. S. Co.	440.0	62.6	26.4	Valparaiso, Chile	Curacao, D. W. I.	General	9,790	9,403	6,653
Guayaquil	9	11.10	9	12.22	9	21.45	11	1.05	American	Panama R. R. S. S. Line	251.0	43.6	16.3	Guayaquil, Ecuador	New York, N. Y.	General	1,142	2,874	1,944
Cauca[25]	9	23.50	10	3.46	10	12.10	10	12.10	Colombian	National Navigation Co.	107.0	23.0	11.0	Buenaventura, Col.	Cristobal, C. Z.	[20]	264	238	163
Spondilus[1][15]	9	12.30	10	5.58	10	13.15	10	13.15	British	Anglo-Saxon Pet. Co	456.7	59.0	26.0	San Francisco, Cal.	Land's End, Eng.	Benzine	8,795	7,915	4,797
Glasgow Maru	9	17.55	10	7.11	10	14.20	10	14.20	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.0	Portland, Oreg.	Lisbon, Portugal	Wheat	7,708	6,213	4,665
Oak Branch	10	6.20	10	8.13	10	15.45	10	18.10	British	F. & W. Ritson	385.0	49.8	24.0	Corral, Chile	Liverpool, Eng.	General	6,330	5,209	4,035
Felce	10	12.00	10	13.17	10	21.15	10	23.00	Italian	Achetti Lauro	438.0	55.0	24.0	Junin, Chile	Azores[25]	Nitrates	8,030	6,554	4,514
Rochester[21]	10	13.00	10	13.38	10	22.35	11	8.05	American	U. S. Navy	384.0	64.0	26.0	Corinto, Nicaragua	Cristobal, C. Z.				
Wayfarer	10	14.40	11	4.50	11	12.25	11	16.35	British	Balfour, Guthrie & Co.	295.5	52.5	24.4	Vancouver, B. C.	London, England	Grain, general	6,825	5,728	3,855
Japan Arrow[1]	10	16.20	11	5.12	11	13.30	11	13.50	American	Standard Transp. Co.	468.3	62.7	28.0	Los Angeles, Calif.	Providence, R. I.	[20]	12,224	10,084	7,426
Elsa[1][25]	10	20.45	11	6.51	11	14.45	11	17.40	Norwegian	Harry Borthen & Co.	389.0	52.7	26.0	Los Angeles, Calif.	London, England	Benzine	7,606	5,693	3,811
New Jersey[1]	11	6.00	11	8.31	11	17.05	11	17.05	American	Texas Oil Co.	416.8	56.1	26.0	Los Angeles, Calif.	Norfolk, Va.	Gasoline	10,286	7,130	5,240
S-17[22]			11	8.33	11	15.50			American	U. S. Navy	231.0	20.0	12.0	Balboa, C. Z.	Cristobal, C. Z.				
Hans Leonhardt[15]	11	7.05	11	8.52	11	18.04	12	10.10	German	Colombian Mar. Co.	230.8	36.1	14.0	Buenaventura, Col.	New York, N. Y.	[27]	323	1,568	909
Caroni[1][23]	6	2.25	11	9.12	11	17.40	11	17.40	Venezuelan	Venezuela Gulf Oil Co	325.0	55.2	11.7	Balboa, C. Z.	Maracaibo, Venez.	Ballast			
Port Curtis	11	9.55	11	10.37	11	18.40	11	20.55	British	Com'lth & Dom. Line	450.0	58.4	22.6	Napier, N. Z.	New York, N. Y.	[28]	4,549	8,500	6,140
Virginia S.	11	12.00	11	13.29	11	22.00	11	22.00	Greek	S. Q. Embiricos, Ltd.	375.0	47.5	24.5	Tocopilla, Chile	Azores[25]	Nitrates	6,800	4,906	3,663
Texan	11	13.20	11	13.55	11	22.50	11	22.55	American	Amer.-Hawaiian Line	471.0	57.5	27.0	Seattle, Wash.	Boston, Mass.	Lumber, general	8,099	9,154	6,966
West Katan	9	7.10	11	21.42	12	8.55	12	8.55	American	Calif. & East'n S. S. Co.	410.5	54.3	26.0	Seattle, Wash.	Philadelphia, Pa.	Lumber	6,600	6,573	4,916
Stella	11	19.55	11	22.10	12	9.10	15	6.05	Norwegian	Panama Mail S. S. Co.	195.1	32.9	14.3	Puntarenas, C. R.	Cristobal, C. Z.	Coffee, general	591	985	606
Phobos[1][15]	11	22.05	12	1.30	12	10.50	12	10.50	Dutch	Anglo-Saxon Pet. Co	440.0	59.0	25.7	San Francisco, Cal.	Curacao, D. W. I.	Stove oil	8,890	7,935	5,065
Tainui	11	23.56	12	2.15	12	11.35	12	16.55	British	Shaw, Savill & Albion	477.8	61.1	24.6	Bluff, N. Z.	London, England	Foodstuffs	4,520	10,657	7,617
Solana[4]	11	23.05	12	5.30	12	12.55	12	12.55	American	Associated Oil Co.	419.5	55.5	25.7	San Francisco, Cal.	New York, N. Y.	Gasoline	8,820	7,060	5,025
Oroya	12	5.40	12	7.06	12	14.55	12	22.30	British	Pacific Steam Nav. Co.	525.3	62.8	29.0	Talcahuano, Chile	Liverpool, England	[29]	8,399	13,137	9,067
Acajutla	12	5.15	12	7.50	12	15.50			British	Pacific Steam Nav. Co.	215.7	33.5	16.0	Champerico, Guat.	Cristobal, C. Z.	Coffee, general	911	1,273	706
Derbyline[1]	12	8.25	12	9.26	12	17.05	12	17.05	American	The Texas Co	435.0	56.0	27.6	Los Angeles, Calif.	Baltimore, Md.	Gas oil	10,300		
Eldonpark Canadian Challenger	11	23.45	12	10.58	12	19.05	12	19.05	British	J. & J. Denholm, Ltd	407.3	53.3	24.6	Antofagasta, Chile	Azores[25]	Nitrates	7,950		
Cubore[15]	12	11.45	12	12.28	12	20.10	13	6.20	American	Can. Nat. Steamships	400.1	52.2	15.4	Adelaide, Australia	Halifax, N. S.	General	1,802	6,142	5,025
Baralt	12	14.00	12	14.44	12	21.55	12	21.55	Dutch	Calmar S. S. Corp	450.6	57.2	28.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	10,500		
Doris[24]	11	15.05	12	9.48	12				Panaman	Royal Neth. S. S. Co.	203.0	33.1	14.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	862	1,183	742
Arinosa[24]	11	15.05	12	9.48	12				Panaman	United Fruit Co.	37.5			Balboa, C. Z.	Gatun Lake, C. Z.	[30]		7	
No. 31004[25]	11	15.05	12	9.48	12				Panaman	United Fruit Co.	34.0	15.0		Balboa, C. Z.	Gatun Lake, C. Z.	[30]		7	
No. 31064[25]	11	15.05	12	9.48	12				Panaman	United Fruit Co.				Balboa, C. Z.	Gatun Lake, C. Z.	[31]			
No. 31062[25]	11	15.05	12	9.48	12				Panaman	United Fruit Co.				Balboa, C. Z.	Gatun Lake, C. Z.	[31]			
	11	15.05	12	9.48	12				Panaman	United Fruit Co.				Balboa, C. Z.	Gatun Lake, C. Z.	[31]			

[1] Tanker. [19] Coffee, cocoa, hides, and ivory nuts. [20] Coffee, gold, and platinum. [21] Cruiser. [22] Submarine. [23] Came south for dry-docking only. [24] Launch. [25] Barge. [26] For orders. [26] Kerosene distillate. [27] Coffee, hides, and rubber. [28] Butter, wool, and flax. [29] Copper, tin, and general. [30] Towing barges. [31] Towed by *Doris* and *Arinosa*.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
January 6	Calamares	United Fruit Co	Port Limon, Costa Rica.
January 7	Annetta [32]	L. Galiasso	New York, N. Y.
January 7	Mayari	United Fruit Co	New York via wayports.
January 7	Pastores	United Fruit Co	New York via Habana.
January 7	Resolute [35]	D. L. Lynton	Colon, R. P.
January 9	Iriona	United Fruit Co	New Orleans, La.
January 9	Granada	Standard Fruit & S. S. Co	New Orleans, La.
January 9	Crynssen	Royal Netherlands S. S. Co	Amsterdam and wayports.
January 9	Abcssinia	Hamburg-American Line	Hamburg via wayports.
January 9	Puerto Rico	French Line	St. Nazaire via wayports.
January 9	Sixaola	United Fruit Co	New York via Kingston.
January 10	Mayan	Gulf Caribbean S. S. Co	New Orleans, La.
January 10	Inapaquina [31]	United Fruit Co	Colon, R. P.
January 10	Anachucuna [33]	United Fruit Co	Colon, R. P.
January 10	Linda S. [33]	Surgeon Brothers	Colon, R. P.
January 11	Inapaquina [31]	United Fruit Co	Colon, R. P.
January 11	Suriname	United Fruit Co	Port Limon, Costa Rica.
January 11	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
January 11	All America	All America Cables	High seas.
January 11	Barrenfork [35]	Marine Transp. & Towing Co	Norfolk, Va.
January 11	Goliah [35]	Wood Towing Corp	Norfolk, Va.
January 11	San Pablo	United Fruit Co	New York via wayports.
January 12	Reliance	Hamburg-American Line	New York via Kingston.
January 12	Parismina	United Fruit Co	New Orleans via Habana.
January 12	William M. [37]	G. I. Bryan	Colon, R. P.
January 12	Galicia	Hamburg-American Line	Tampico via wayports.

* DEPARTURES.

Date.	Vessel.	Line.	For—
January 6	Nevisian	Leyland Line	New Orleans, La.
January 6	Calamares	United Fruit Co	New York via Habana.
January 6	Anson	Panama R. R. S. S. Line	New York via Haiti.
January 7	Cartago	United Fruit Co	New Orleans and wayports
January 7	Fylgia [40]	Swedish Government	Mobile, Ala.
January 7	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
January 8	Mayari	United Fruit Co	Almirante, R. P.
January 9	Iriona	United Fruit Co	Pto. Colombia and Bocas.
January 9	Pastores	United Fruit Co	Port Limon, Costa Rica.
January 9	Abcssinia	Hamburg-American Line	Curaçao, D. W. I.
January 10	Inapaquina [31]	United Fruit Co	Colon, R. P.
January 10	Sixaola	United Fruit Co	Colombian ports.
January 10	Crynssen	Royal Netherlands S. S. Co	Amsterdam via wayports.
January 10	Linda S. [33]	Surgeon Brothers	Bluefields, Nicaragua.
January 11	Anachucuna [33]	United Fruit Co	Colon, R. P.
January 11	Resolute [35]	D. L. Tynton	Colon, R. P.
January 11	Inapaquina [31]	United Fruit Co	Colon, R. P.
January 11	Mayan	Gulf Caribbean S. S. Co	Lake Charles, La.
January 11	Puerto Rico	French Line	Havre via wayports.
January 11	Granada	Standard Fruit & S. S. Co	New Orleans via wayports.
January 11	Suriname	United Fruit Co	New Orleans, La.
January 12	Reliance	Hamburg-American Line	New York via wayports.
January 12	William M. [37]	G. I. Bryan	Bluefields, Nicaragua.

[32] Yacht [33] Motor schooner. [31] Motor boat. [35] Tug. [40] Cruiser. [37] Schooner.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
January 6	Bertha [38]	Chiriqui Land Co	Puerto Armuelles, R. P.
January 7	Carabobo [39]	Colombian Government	Buenaventura, Colombia.
January 11	A. B. De Obarrio [39]	Pacific Fruit Co	Bayano River, R. P.
January 11	Dos Hermanos [38]	A. Valdez	Bayano River, R. P.
January 11	El Colon [38]	H. Elliot	Chepigana, R. P.
January 11	Big Bill [39]	H. Elliot	Sambu River, R. P.

Date.	Vessel.	Line.	For—
January 6	Bertha [38]	Chiriqui Land Co	Puerto Armuelles, R. P.
January 6	Canafagua [38]	Panama Maritime Co	Panama Bay, R. P.
January 11	Carabobo [39]	Colombian Government	Buenaventura, Colombia.
January 9	Mariner [40]	John Barrymore	High seas.
January 11	A. B. de Obarrio [38]	Pacific Fruit Co	Panama Bay, R. P.
January 11	Dos Hermanos [38]	A. Valdez	Panama Bay, R. P.
January 11	Big Bill [39]	H. Elliot	Panama Bay, R. P.
January 11	El Colon [38]	H. Elliot	Panama Bay, R. P.

[38] Motor schooner. [39] Motor ship. [40] Yacht. * Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in December, 1928, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of December, 1928, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for December, 1927 and 1926. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	77	401,362	307,670	493,936	306,409	$348,593.21	256,242
Europe to west coast Canada:							
British	31	146,047	110,091	173,758	107,269	114,431.11	10,524
Danish	1	5,389	3,675	6,415	3,508	3,880.08	.....
French	2	9,770	6,461	10,788	6,423	8,076.25	5,191
German	2	12,599	8,223	13,341	8,238	10,278.75	6,134
Italian	1	6,497	4,905	8,124	5,128	6,131.25	2,429
Swedish	1	5,199	4,148	6,864	4,997	3,743.28	.....
Totals	38	185,501	137,503	219,290	135,563	146,540.72	26,278
Europe to west coast of South America:							
Belgian	1	6,211	4,522	7,130	4,013	4,471.92	.....
British	10	50,630	40,446	65,705	40,646	46,174.27	23,654
Danzig	1	6,127	5,268	8,939	5,097	4,411.44	.....
Dutch	2	9,727	5,873	9,611	5,749	7,341.25	7,812
French	2	9,461	7,105	11,373	7,067	8,881.25	5,604
German	4	19,162	14,235	21,649	12,994	17,793.75	19,183
Greek	2	7,575	6,064	9,156	5,638	5,454.00	.....
Italian	4	21,890	16,249	26,401	15,933	19,449.13	3,413
Norwegian	3	10,085	7,516	12,447	7,545	9,395.00	10,086
Spanish	1	2,827	2,459	4,349	2,565	3,073.75	232
Yugoslav	3	11,587	8,778	13,736	8,777	8,839.50	5,315
Totals	33	155,282	118,515	190,496	115,934	135,285.26	75,299
East coast of United States to Far East:							
British	10	53,078	36,192	57,086	35,221	45,240.00	67,336
Danish	1	4,569	2,709	4,472	2,732	3,386.25	7,500
German	1	4,055	4,117	5,088	3,156	4,866.00	5,583
Japanese	6	28,810	26,034	36,987	25,595	31,882.50	38,882
Norwegian	5	20,813	12,376	20,981	12,392	15,470.00	28,657
United States	3	16,708	12,879	20,516	12,885	16,098.75	21,745
Totals	26	128,033	94,307	145,130	91,981	116,943.50	169,703
Europe to west coast of United States:							
Belgian	1	4,976	4,568	7,138	3,988	5,710.00	8,100
British	11	51,534	40,141	65,759	40,170	37,969.48	8,249
Danish	2	11,012	8,947	14,336	8,957	9,374.15	3,070
French	2	9,685	8,380	13,488	7,477	6,973.20	.....
German	2	10,530	7,401	12,824	7,457	7,796.42	5,598
Norwegian	4	18,994	15,942	26,347	14,895	15,309.55	6,001
Panaman	1	6,650	5,650	8,947	5,651	4,788.00	.....
Swedish	2	8,392	5,192	9,026	6,809	6,490.00	6,955
United States	1	7,895	6,052	9,838	6,019	5,684.40	.....
Totals	26	129,668	102,273	167,703	101,423	100,095.20	37,973
East coast of United States to west coast of South America:							
British	5	19,566	14,731	25,032	15,378	16,830.93	6,818
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	2,529
German	1	909	689	1,314	681	861.25	188
Italian	1	4,104	4,101	5,240	3,362	3,075.75	.....
Norwegian	1	4,730	4,105	6,583	4,119	3,405.60	.....
Peruvian	1	1,529	1,483	2,155	1,169	1,834.80	1,671
Swedish	2	5,574	4,729	17,020	5,611	4,469.62	566
United States	13	49,060	39,383	67,127	38,895	41,119.17	24,264
Totals	25	90,144	72,654	131,781	73,191	75,888.37	36,036

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of United States to Australasia:							
British	9	52,211	35,027	56,163	35,149	$43,783.75	39,662
United States	2	10,585	7,559	11,758	7,378	9,448.75	5,922
Totals	11	62,796	42,586	67,921	42,527	53,232.50	45,584
Europe to Australasia:							
British	9	71,655	53,054	82,595	51,809	66,317.50	53,213
French	1	5,162	4,357	6,889	4,446	5,446.25	2,675
Swedish	1	6,098	3,286	6,059	4,311	4,107.50	.....
Totals	11	82,915	60,697	95,543	60,566	75,871.25	55,888
Cristobal, C. Z., to west coast South America:							
Colombian	3	418	409	619	400	492.45	650
Dutch	2	1,484	588	1,560	646	735.00	426
German	4	3,491	2,260	4,347	2,334	2,825.00	2,013
Norwegian	1	504	423	732	391	528.75	650
Panaman	1	124	113	207	109	141.25	321
Totals	11	6,021	3,793	7,465	3,880	4,722.45	4,060
East coast of Canada to Australasia:							
British	5	21,519	16,984	25,012	15,401	21,027.50	13,172
East coast of Central America to west coast United States:							
United States	5	11,292	10,250	16,694	10,129	12,759.45	2,972
Around the world:							
British	1	18,874	13,130	27,132	15,352	16,412.50	.....
United States	3	23,653	18,010	28,735	18,099	22,512.50	15,640
Totals	4	42,527	31,140	55,867	33,451	38,925.00	15,640
East coast of United States to west coast Canada:							
British	1	4,524	3,520	5,608	3,546	3,257.28	.....
Swedish	1	4,029	3,279	5,655	4,150	2,900.88	.....
United States	2	5,568	4,768	7,723	4,735	5,960.00	9,702
Totals	4	14,121	11,567	18,986	12,431	12,118.16	9,702
Europe to west coast Central America:							
British	2	6,132	5,065	7,711	4,752	6,331.25	11,485
German	1	3,272	2,517	4,165	2,547	3,146.25	3,907
Spanish	1	3,357	2,672	4,324	2,675	2,417.04	.....
Totals	4	12,761	10,254	16,200	9,974	11,894.54	15,392
West Indies to west coast of United States:							
British	1	4,514	3,560	5,587	3,513	4,450.00	7,544
French	[1]	.....	.....	.....	.....	6,608.50	.....
Norwegian	1	3,489	3,276	4,265	2,501	4,095.00	6,431
United States	1	129	119	149	119	92.88	.....
Totals	4	8,132	6,955	10,001	6,133	15,246.38	13,975
Cristobal, C. Z., to west coast Central America:							
British	3	2,063	1,900	3,436	1,906	2,353.90	3,028
Norwegian	1	606	485	855	482	606.25	840
Totals	4	2,669	2,385	4,291	2,388	2,960.15	3,868
East coast United States to Philippine Islands:							
British	2	11,304	7,095	12,587	7,281	8,868.75	11,583
Danish	1	2,206	1,741	2,925	1,748	2,176.25	2,670
Totals	3	13,510	8,836	15,512	9,029	11,045.00	14,253
West Indies to Far East:							
British	1	4,823	3,492	6,646	4,201	4,365.00	7,450
Swedish	1	4,084	2,932	5,025	3,822	3,665.00	6,767
Totals	2	8,907	6,424	11,671	8,023	8,030.00	14,217

[1] Naval vessel of 13,217 displacement tons.

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
East coast of South America to west coast of Canada:							
Norwegian	1	4,722	2,728	4,624	2,765	$3,410.00	2,990
United States	1	4,989	3,517	5,550	3,517	4,396.25	2,508
Totals	2	9,711	6,245	10,174	6,282	7,806.25	5,498
Canadian intercoastal:							
British	2	8,307	6,857	11,191	6,887	8,571.25	13,241
Cristobal, C. Z., to west coast United States:							
United States	2	6,758	5,494	9,050	5,520	5,209.23	2,273
Egypt to west coast of South America:							
Yugoslav	2	8,505	6,725	10,640	6,758	6,123.60	.....
Africa to west coast Canada:							
British	2	9,187	6,431	10,484	6,441	6,614.64	.....
Foreign vessels in ballast—U. S. intercoastal:							
Italian	1	4,069	3,347	5,488	3,276	2,929.68	.....
East coast of United States to west coast of Central America:							
Norwegian	1	892	824	1,630	892	1,030.00	1,376
East coast of United States to Hawaiian Islands:							
United States	1	5,450	3,465	5,687	3,451	4,331.25	7,759
East coast of Canada to west coast of U. S.:							
Danish	1	4,583	2,651	4,454	2,694	3,313.75	4,497
Central American intercoastal:							
Norwegian	1	986	964	1,581	977	1,183.20	1,269
East coast of Central America to Australasia:							
British	1	3,985	2,777	4,437	2,769	3,471.25	5,225
South American intercoastal:							
Peruvian	1	2,405	989	3,305	1,514	1,236.25	412
East coast of South America to west coast of U. S.:							
United States	1	5,047	3,587	5,580	3,541	4,483.75	8,000
Egypt to west coast of Canada:							
British	1	4,548	2,930	4,856	2,936	3,274.56	.....
Africa to west coast of U. S.:							
United States	1	3,528	3,057	4,929	3,046	2,540.16	.....
Africa to west coast of South America:							
Greek	1	3,936	2,650	4,229	2,605	2,833.92	.....
Africa to Australasia:							
British	1	4,564	4,457	6,180	4,490	5,476.80	7,700
Grand tota's, Dec., 1928.	315	1,463,621	1,108,243	1,797,394	1,102,512	1,261,608.18	867,504
Grand totals, Dec., 1927.	301	1,356,467	1,049,619	1,710,285	1,046,591	1,159,285.15	676,601
Grand totals, Dec., 1926.	245	1,131,568	887,718	1,456,403	888,878	1,003,121.38	734,448

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	74	373,637	286,777	462,944	286,851	$358,471.25	528,347
West coast Canada to Europe:							
British	27	127,721	93,379	147,260	91,487	116,723.75	204,435
Danish	1	5,660	5,233	6,919	5,223	6,541.25	9,893
Dutch	3	20,673	15,186	24,364	15,108	18,982.50	27,780
French	3	15,223	10,579	17,301	10,755	13,223.75	24,909
German	5	30,443	20,234	34,025	20,642	25,292.50	40,087
Italian	2	12,089	10,086	14,121	8,920	12,607.50	18,080
Japanese	4	20,172	19,593	26,177	19,423	23,943.40	34,852
Norwegian	3	16,373	13,410	21,417	13,455	16,762.50	23,754
Swedish	2	10,351	6,199	10,601	7,795	7,748.75	14,306
United States	2	10,687	7,314	11,883	7,299	9,142.50	16,028
Totals	52	269,392	201,213	314,068	200,107	250,968.40	414,124

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to Europe:							
British	9	60,859	46,895	78,826	48,698	$58,618.75	73,399
Danzig	1	6,127	5,268	8,939	5,007	6,585.00	11,100
Dutch	2	10,895	7,185	12,446	7,244	8,981.25	16,694
French	2	8,506	7,908	11,060	7,501	9,753.25	15,486
German	5	23,701	16,095	25,734	15,803	20,118.75	34,858
Greek	12	47,202	34,571	53,722	33,797	43,213.75	85,857
Italian	2	12,964	8,511	16,217	9,557	10,638.75	10,737
Norwegian	2	7,167	4,722	7,930	4,642	5,902.50	12,320
Peruvian	1	5,415	4,338	7,073	4,373	5,422.50	6,819
Spanish	3	12,176	10,044	16,454	10,098	12,555.00	17,654
Yugoslav	5	22,998	17,367	27,820	17,506	21,708.75	44,116
Totals	44	218,010	162,904	266,221	164,226	203,498.25	329,040
West coast of South America to east coast United States:							
British	7	33,362	27,172	47,507	28,689	33,965.00	53,767
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	5,568
Danish	1	4,519	3,595	5,886	3,658	4,493.75	8,700
German	1	2,817	1,545	2,593	1,526	1,931.25	545
Norwegian	2	7,661	4,812	7,997	4,801	6,015.00	14,440
Panaman	1	4,897	4,014	6,386	4,067	5,017.50	8,897
Swedish	3	9,995	8,472	32,359	9,988	10,590.00	43,645
United States	12	60,305	51,657	90,522	50,714	64,305.85	144,812
Totals	28	128,261	104,733	200,560	107,419	130,650.85	280,374
West coast of United States to Europe:							
British	8	35,126	26,970	44,428	27,120	33,712.50	51,971
German	1	3,508	2,206	4,124	2,234	2,757.50	3,160
Japanese	1	4,381	4,349	5,873	4,254	5,257.20	7,452
Norwegian	3	14,869	12,743	21,485	12,696	15,928.75	28,958
Swedish	1	6,295	5,189	8,945	6,592	6,486.25	11,872
Totals	14	64,179	51,457	84,855	52,896	64,142.20	103,413
West coast of South America to Cristobal:							
Colombian	3	379	358	593	343	439.30	628
Dutch	1	742	294	780	323	367.50	580
German	4	3,491	2,260	4,347	2,334	2,825.00	2,372
Norwegian	1	504	423	732	391	528.75	890
Peruvian	1	2,959	1,515	4,617	2,427	1,893.75	3,114
Totals	10	8,075	4,850	11,069	5,818	6,054.30	7,584
Australasia to Europe:							
British	5	39,833	29,634	48,977	30,403	37,042.50	30,152
West coast of United States to east coast Central America:							
United States	5	14,049	12,382	19,760	12,213	15,477.50	11,865
Philippine Islands to east coast of United States:							
Japanese	2	11,592	8,809	14,033	8,625	11,011.25	11,166
United States	2	10,366	7,913	12,628	7,859	9,891.25	15,031
Totals	4	21,958	16,722	26,661	16,484	20,902.50	26,197
West coast of Central America to Cristobal, C. Z.:							
British	3	2,063	1,900	3,436	1,906	2,375.00	1,012
Norwegian	1	606	485	855	482	606.25	101
Totals	4	2,669	2,385	4,291	2,388	2,981.25	1,113
West coast of Canada to east coast of United States:							
British	1	59	51	120	83	43.92	.....
United States	2	8,903	7,188	11,414	7,137	8,985.00	12,700
Totals	3	8,962	7,239	11,534	7,220	9,028.92	12,700
West coast of United States to Cristobal, C. Z.:							
Panaman	1	2,603	1,383	3,644	2,594	1,728.75	934
United States	2	6,758	5,494	9,050	5,520	6,867.50	10,167
Totals	3	9,361	6,877	12,694	8,114	8,596.25	11,101

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Australasia to east coast of Canada:							
British	3	12,384	9,798	16,384	10,051	$12,247.50	3,739
Far East to Europe:							
British	2	6,591	4,904	7,673	4,841	6,130.00	9,490
Danish	1	5,588	4,473	7,014	4,470	5,591.25	9,355
Totals	3	12,179	9,377	14,687	9,311	11,721.25	18,845
West coast of South America to east coast Canada:							
British	2	9,698	8,321	14,318	8,325	10,401.25	19,179
Far East to east coast United States:							
Japanese	1	5,294	4,181	6,609	4,040	5,226.25	5,151
United States	1	6,036	4,828	7,597	4,753	6,035.00	9,217
Totals	2	11,330	9,009	14,206	8,793	11,261.25	14,368
West coast of United States to West Indies:							
Norwegian	1	3,612	3,201	5,313	3,005	4,001.25	6,937
Canadian intercoastal:							
British	1	4,186	3,322	5,465	3,400	4,152.50	6,500
West coast Canada to Africa:							
British	1	4,345	3,181	5,274	3,171	3,976.25	6,144
Central American intercoastal:							
Norwegian	1	987	964	1,581	977	1,184.40	790
South American intercoastal:							
Peruvian	1	2,405	989	3,305	1,514	1,236.25	1,986
West coast of South America to West Indies:							
British	1	4,962	4,188	6,998	4,026	3,572.64	
Australasia to east coast of United States:							
United States	1	5,823	5,395	6,870	5,259	6,743.75	5,470
Far East to West Indies:							
Norwegian	1	4,222	2,487	4,302	2,450	3,108.75	7,515
Grand totals, Dec., 1928.	264	1,234,519	947,405	1,562,337	954,421	1,181,421.21	1,847,483
Grand totals, Dec., 1927.	288	1,260,261	994,257	1,604,265	989,978	1,239,174.60	1,897,227
Grand totals, Dec., 1926.	213	1,003,434	797,192	1,303,755	798,518	992,915.34	1,575,822

Gatun Lake Water Supply in Calendar Year, 1928.

A statement issued by the Section of Surveys contains the information that the total yield from the Gatun Lake watershed during the calendar year 1928 was 6 per cent above the average for the past 15 years. The total yield from the 1,320 square miles of watershed was 217.56 billion cubic feet. This is about one and one-eighth times the capacity of the lake. About two-fifths of this came from above Alhajuela, another two-fifths from the land area below Alhajuela, and the remaining one-fifth from direct rainfall on the surface of the lake.

Nearly one-half of this run-off was wasted over the spillway. Gatun Lake lockages took about one-fifth, and the hydroelectric station used slightly more than was consumed in lockages. Nearly one-tenth of the water disappeared in evaporation from the lake surface. Leakages and the use of water for municipal purposes used less than 1 one-hundredth of the inflow.

The net yield of Gatun Lake for the year 1928 was 196.76 billion cubic feet, or approximately 4.5 billion cubic feet more than would have been necessary to fill the lake from elevation 0 to its normal maximum elevation of 87 feet above sea level.

Further details of the Gatun Lake water supply are published each year in the annual report of the Governor.

Grounding of "President Adams" off Cristobal.

The passenger steamship *President Adams* of the Dollar Line, bound for Cristobal from New York via Habana in the regular around-the-world service of the line, grounded on a reef outside of the West Breakwater at approximately 5.55 a. m., January 11. A Navy tug and tugs of The Panama Canal went to the assistance of the *President Adams*, the 90 passengers were transferred to land, and the ship was pulled off of the reef about 9.30 p. m. same date, subsequent to which she was towed to Cristobal and tied up alongside Pier 6. On January 14 the *President Adams* was towed through the Canal to Balboa, to be placed in dry dock.

The master of the *President Adams* advised the Canal authorities that The Panama Canal was in no way responsible for the accident, and accordingly no investigation was made by the Board of Local Inspectors.

New Street Improvement Between Panama and Balboa.

Work has been begun by forces of the Municipal Engineering Division of The Panama Canal on an extension of Avenue "A" in Panama City, to join Balboa Road at Chorillo. It is expected that the new street will greatly reduce the congestion in traffic between Balboa and Panama which is now confined to "B" Street. There are three streets which are to be joined in the extention of Avenue "A," all of which will be improved before joining the principal thoroughfare.

Traffic by Nationality for December, 1928.

The following tabulation shows the commercial traffic through the Canal during the month of December, 1928, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, with corresponding totals for December, 1927 and 1926:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian	2	11,187	9,090	14,268	8,001	$10,181.92	8,100
British	108	549,065	407,880	656,965	405,117	465,221.72	289,884
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	2,529
Colombian	3	418	409	619	400	492.45	650
Danish	6	27,759	19,723	32,602	19,639	22,130.48	17,737
Danzig	1	6,127	5,268	8,939	5,007	4,411.44	.....
Dutch	4	11,211	6,461	11,171	6,395	8,076.25	8,238
French	[1]8	34,078	26,303	42,538	25,413	35,985.45	13,470
German	15	54,018	39,442	62,728	37,407	47,567.42	44,606
Greek	3	11,511	8,714	13,385	8,243	8,287.92	.....
Italian	7	36,560	28,602	45,253	27,699	31,585.81	5,842
Japanese	6	28,810	26,034	36,987	25,595	31,882.50	38,882
Norwegian	19	65,821	48,639	80,045	46,959	54,433.35	58,300
Panaman	2	6,774	5,763	9,154	5,760	4,929.25	321
Peruvian	2	3,934	2,472	5,460	2,683	3,071.05	2,083
Spanish	2	6,184	5,131	8,673	5,240	5,490.79	232
Swedish	8	33,376	23,566	49,649	29,700	25,376.28	14,288
United States	113	552,024	425,810	687,272	423,743	483,229.75	357,027
Yugoslav	5	20,092	15,503	24,376	15,535	14,963.10	5,315
Totals, December, 1928	315	1,463,621	1,108,243	1,797,394	1,102,512	1,261,608.18	867,504
Totals, December, 1927	301	1,356,467	1,049,619	1,710,285	1,046,591	1,159,285.15	676,601
Totals, December, 1926	245	1,131,568	887,718	1,456,423	888,878	1,003,121.38	734,448

[1] Includes naval vessel of 13,217 displacement tons.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
British	70	341,189	259,715	426,666	262,200	$322,961.56	459,788
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	5,568
Colombian	3	379	358	593	343	439.30	628
Danish	3	15,767	13,301	19,819	13,351	16,626.25	27,948
Danzig	1	6,127	5,268	8,939	5,007	6,585.00	11,100
Dutch	6	32,310	22,665	37,590	22,675	28,331.25	45,054
French	5	23,729	18,487	28,361	18,256	22,977.00	40,395
German	16	63,960	42,340	70,823	42,539	52,925.00	81,022
Greek	12	47,202	34,571	53,722	33,797	43,213.75	85,857
Italian	4	25,053	18,597	30,338	18,477	23,246.25	28,817
Japanese	8	41,439	36,932	52,692	36,342	45,438.10	58,621
Norwegian	15	56,001	43,247	71,612	42,899	54,038.15	95,705
Panaman	2	7,500	5,397	10,030	6,661	6,746.25	9,831
Peruvian	3	19,779	6,842	14,995	8,314	8,552.50	11,919
Spanish	3	12,176	10,044	16,454	10,098	12,555.00	17,654
Swedish	6	26,641	19,860	51,905	24,375	24,825.00	69,823
United States	101	496,564	388,948	632,668	387,605	485,919.60	753,637
Yugoslavian	5	22,998	17,367	27,820	17,506	21,708.75	44,116
Totals, December, 1928	264	1,234,519	947,405	1,562,337	954,421	1,181,421.21	1,847,483
Totals, December, 1927	288	1,260,261	994,257	1,604,265	989,978	1,239,174.60	1,897,227
Totals, December, 1926	213	1,003,434	797,192	1,303,755	798,518	992,915.34	1,575,822

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	2	11,187	9,090	14,268	8,001	$10,181.92	8,100
British	178	890,254	667,595	1,083,631	667,317	788,183.28	749,672
Chilean	2	9,377	6,899	14,620	7,952	8,623.75	8,097
Colombian	6	797	767	1,212	743	931.75	1,278
Danish	9	43,526	33,024	52,421	32,990	38,756.73	45,685
Danzig	2	12,254	10,536	17,878	10,014	10,996.44	11,100
Dutch	10	43,521	29,126	48,761	29,070	36,407.50	53,292
French	[1] 13	57,807	44,790	70,899	43,669	58,962.45	53,865
German	31	117,978	81,782	133,551	79,946	100,492.42	125,628
Greek	15	58,713	43,285	67,107	42,040	41,501.67	85,857
Italian	11	61,613	47,199	75,591	46,176	54,832.06	34,659
Japanese	14	70,249	62,966	89,679	61,937	77,320.60	97,503
Norwegian	34	121,822	91,886	151,657	89,858	108,471.50	154,005
Panaman	4	14,274	11,160	19,184	12,421	11,675.50	10,152
Peruvian	5	14,713	9,314	20,455	10,997	11,623.55	14,002
Spanish	5	18,360	15,175	25,127	15,338	18,045.79	17,886
Swedish	14	60,017	43,426	101,554	54,075	50,201.28	84,111
United States	214	1,048,588	814,758	1,319,940	811,348	969,149.35	1,110,66
Yugoslav	10	43,090	32,870	52,196	33,041	36,671.85	49,431
Totals, December, 1928	579	2,698,140	2,055,648	3,359,731	2,056,933	2,443,029.39	2,714,987
Totals, December, 1927	589	2,616,728	2,043,876	3,314,550	2,036,569	2,398,459.75	2,573,828
Totals, December, 1926	458	2,135,002	1,684,910	2,760,158	1,687,396	1,996,036.72	2,310,270

[1] Includes naval vessel of 13,217 displacement tons.

Geologists Arrive to Begin Surveys at Alhajuela Dam Site.

Geological surveys to determine the type of dam to be constructed at Alhajuela, the methods to be used in preventing leakage under the dam, and where saddle dams must be placed, will be made by two geologists from the Geological Survey in Washington, who arrived on the Isthmus on January 16. Their work will include a thorough inspection of the Alhajuela basin as well as of the dam site.

Arrival of New Diesel-electric Dredge for Panama Canal.

The new pipe line dredge *Las Cruces*, which was recently completed at the works of the Ellicott Machine Corporation, Baltimore, Md., for The Panama Canal, arrived at Cristobal on January 11, 1929, in tow of the tugs *Goliah* and *Barrenfork*.

The *Las Cruces*, which is one of the largest and most powerful hydraulic dredges ever constructed, is of the Diesel-electric type. Four Fulton engines are directly connected to generators and form the main power units, while the main pump and all auxiliaries are driven by electric motors.

The dredge is capable of pumping through a pipe line over 2 miles in length, and has a capacity of 500 to 1,000 cubic yards per hour, depending upon the kind of material dredged. The displacement in working condition is about 2,500 tons. The hull, which has a length of 226 feet, width of 50 feet, and depth of 14 feet, is built of steel, with numerous water-tight bulkheads to insure the safety of the dredge in case of collision. In addition, both engine rooms and the motor room have a double bottom $2\frac{1}{2}$ feet deep, thus making it practically unsinkable. The agitating ladder is capable of digging to a depth of 60 feet. It is 90 feet long, and weighs approximately 400,000 pounds. The motor for the agitating machinery is mounted directly on the ladder and is of 350 horsepower.

The lower deck house is of steel, extending practically the full length of the dredge and 36 feet wide. Traveling cranes are provided over all the machinery. Above the deck house are living quarters of steel, for 80 men. These quarters include separate staterooms for the officers, recreation rooms, mess rooms, a completely equipped galley and cold storage equipment.

The *Las Cruces* is now at Paraiso, headquarters of the Dredging Division, where final adjustments are being made, and it is expected that the dredge will be put to work within 10 days, in the Pacific sea level channel.

United Fruit Steamers to Call at Puerto Armuelles.

A regular steamship service between Puerto Armuelles, in Chiriqui Province of Panama, and Balboa, started on January 14, when the steamer *San Jose* of the United Fruit Company called at the Chiriqui port en route from San Francisco to Balboa. The new service will serve to augment the recently established service of the Panama Mail Line, which makes occasional calls at Puerto Armuelles as cargo and passengers are offered. The first trip from Balboa to Chiriqui by United Fruit Company steamers is to be made on January 20 and a regular weekly service will be maintained thereafter.

It is understood that the steamers of the United Fruit Company will make the trip from Balboa to Puerto Armuelles in 24 hours and that special railway arrangements will be made to establish connections with all steamers calling at Puerto Armuelles.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *January 10, 1929.*

No. 504.

The following was received by the Hydrographic Office from the Lighthouse Subdivision, The Panama Canal:

PANAMA CANAL—GATUN LAKE.

A flashing white light has been established on each of the range beacons marking the center line of the channel through Bohio Reach. Characteristics: One-half second light, 1½ seconds eclipse. These are Rear Range Beacon No. 5 and Front Range Beacon No. 6, used by northbound traffic, and Front Range Beacon No. 9 and Rear Range Beacon No. 10, used by southbound traffic, as shown on H. O. Chart No. 5000.

(Signed) F. KARIGER, *Pilot in Charge.*

H. BURGESS,
Governor.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity ..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending January 5, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Wasgenwald	Hamburg-American Line		December 30		378
Orinoco	Hamburg-American Line		December 30		737
Benjamin Franklin	Norway-Pacific Line	December 30	December 30	(1)	10
Britte	Colombian Maritime Co	December 30	December 31	188	(2)
Toloa	United Fruit Co	December 30	December 30	42	761
Dramatist	T. & J. Harrison	December 30	December 31	727	(2)
Ballena	Pacific Steam Navigation Co		December 31		310
Heredia	United Fruit Co		December 31		37
Jamaica	Pacific Steam Navigation Co	December 31	January 4	605	783½
Santa Barbara	Grace Line	December 31	December 31	(1)	5
Saramacca	United Fruit Co	December 31	December 31	(1)	56
Nevada	French Line	December 31	January 1	164	32
Macabi	United Fruit Co	December 31	January 2	145	521
Calamares	United Fruit Co	December 31	January 2	1,617	49
Eemdijk	Holland-American Line		January 1		105
Ancon	Panama Railroad S. S. Line	January 1		3,526	
Mercian	Leyland Line		January 2		1,956½
Wanks	Standard Fruit & S. S. Co		January 2		6
Balboa	Johnson Line	January 1	January 2	561	(2)
Mantaro	Peruvian Line	January 1	January 2	(1)	157
Ariguani	Elders & Fyffes, Ltd	January 2	January 2	1½	989
Orita	Pacific Steam Navigation Co	January 2	January 3	59	55
Cid	Pacific Steam Navigation Co	January 2	January 3	255	8
Itauri	Hamburg-American Line	January 2	January 3	143	185
Metapan	United Fruit Co	January 2	January 3	618	544
Pacific Enterprise	Furness, Withy & Co	January 2	January 4	8	477
Gatun	Standard Fruit Co	January 2	January 4	328	379
Esparta	United Fruit Co		January 4		214
Portland	Hamburg-American Line	January 3	January 3	(1)	83
Marga	Colombian S. S. Co	January 3	January 3		20
Essequibo	Pacific Steam Navigation Co	January 3	January 4	105	5½
Caldas	National Navigation Co	January 4		247	
Coppename	United Fruit Co	January 4	January 4	226	117
Suriname	United Fruit Co	January 4	January 4	900	91
Poseidon	Hamburg-American Line	January 4	January 5	160	(2)
Wanks	Standard Fruit Co	January 4		88	
La Perla	United Fruit Co	January 5		450	
Cartago	United Fruit Co	January 5		245	
Bowden	United Fruit Co	January 5	January 5	(1)	365½
Jan Van Nassau	Royal Netherlands S. S. Co	January 5	January 5	20	4½
Kinderdijk	Holland-American Line	January 5		562	
Feltre	Nav. Libera-Triestina	January 5		218	
Nevisian	Leyland Line	January 5		650	
Salvador	Pacific Steam Navigation Co	January 5		929	
Floreana	Colombian Transport Co		January 4		326

(1) No cargo discharged. (2) No cargo laded. (3) One case.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending January 12, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Wasgenwald	Hamburg-American Line	December 30	December 31	468	
H. M. Storey	Standard Oil Co	January 2	January 4	15,105	
Rakuyo Maru	Nippon Yusen Kaisha	January 3	January 4	46	
Itauri	Hamburg-American Line	January 3	January 5	681	
St. Mihiel	U. S. Government	January 3	January 4	106	33
Svealand	Axel Brostrom & Sons	January 6	January 6	5	
Ecuador	Panama Mail S. S. Co	January 7	January 7		17
Guatemala	Panama Mail S. S. Co	January 7	January 7	35	20
Deroche	Union Oil Co	January 8	January 8	5	
Breda	Royal Netherlands S. S. Co	January 9	January 9	187	
West Katan	California & Eastern S. S. Co	January 9	January 11	512	
Theodore Roosevelt	Fred Olsen & Co	January 9	January 11	1,003	
California	American Line	January 11	January 11		197
Caldas	National Navigation Co	January 11	January 12		25
Acajutla	Pacific Steam Navigation Co	January 12	January 12	2	

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., January 23, 1929. No. 25.

Nitrate Shipments Through Canal in December Establishes New Record for Month.

Shipments of Chilean nitrates through the Canal in December, 1928, totaled 315,670 tons, establishing a new high monthly record for this commodity through the Canal. The previous high record for this item was established in March, 1927, when 276,837 tons passed through the Canal.

Data on Chilean nitrate shipments through the Canal in the past 8 calendar years are given in the tabulations and graph shown below, which show also, in percentages, the distribution to the chief regions of destination:

Calendar year.	Long tons.	Percentage destined to—		
		United States.	Europe.	Miscellaneous
1921....	991,698	40.6	55.6	3.8
1922....	982,090	49.9	44.1	6.0
1923....	1,814,491	43.9	49.7	6.4
1924....	1,886,864	46.9	47.3	5.8
1925....	2,122,480	49.9	45.9	4.2
1926....	1,376,181	51.6	37.2	11.2
1927....	1,961,698	31.5	54.0	4.5
1928....	2,448,852	38.8	56.6	4.6

Nitrate shipments are an important element in the traffic passing through the Canal. During the past calendar year they comprised approximately 12 per cent of the total cargo tonnage passing through the Canal from the Pacific to the Atlantic, and in volume of cargo tonnage were exceeded only by mineral oils, lumber, and wheat.

Tug "Porto Bello" Sold.

The tug *Porto Bello*, which has been in service for The Panama Canal since 1907, has been sold and the vessel will be turned over to the purchaser, the Reichert Towing Line, Inc., of Brooklyn, N. Y., this month. Formerly the *Robert H. Smith*, the tug was built in 1906 by the Spedden Shipbuilding Company, and was purchased by the Isthmian Canal Commission from the American Towing and Lightering Company in 1907, arriving at Cristobal on November 17, 1907.

A short account of the history of this vessel with the Canal appeared in THE PANAMA CANAL RECORD of November 7, 1928.

Tanker Traffic Through the Panama Canal During Calendar Year 1928.

During the calendar year 1928, 981 tank ships transited the Canal, carrying a total of 4,954,422 tons of cargo, principally crude petroleum and gasoline. These vessels had a combined net tonnage of 5,306,038 Panama Canal measurement, on which tolls of $4,639,012.34 were paid.

Tank ships comprised 15.5 per cent of the total commercial transits during the year; 18.3 per cent of the total Panama Canal net tonnage; paid 17.6 per cent of the total tolls collected; and carried 16.9 per cent of the total cargo carried in commercial vessels.

Tanker traffic declined heavily as compared with the previous calendar year owing to the development of producing areas on the Atlantic seaboard.

Expressed in terms of percentage, the following tabulation shows the volume of tanker traffic through the Canal during the past 5 years:

	Per cent of total traffic.			
	Number of transits.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Calendar year 1924	31.1	32.7	31.2	31.1
Calendar year 1925	20.4	25.1	23.6	22.5
Calendar year 1926	23.1	28.3	26.9	25.7
Calendar year 1927	21.9	26.6	25.4	24.3
Calendar year 1928	15.5	18.3	17.6	16.9

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the calendar year 1928, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals for the previous four calendar years:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
Belgian	2	9,952	$9,292.72	8,100
British	121	596,639	443,262.94	68,528
Danish	4	23,469	16,897.68	
Danzig	14	89,596	64,509.12	
Dutch	5	19,720	15,512.86	7,124
French	8	36,969	26,617.68	
German	5	22,248	16,018.56	
Italian	1	3,961	3,107.25	
Norwegian	20	95,690	72,745.07	19,917
Panaman	1	6,650	4,788.00	
Swedish	2	10,792	7,770.24	
United States	318	1,770,291	1,301,255.20	123,426
Totals, calendar year 1928	501	2,685,977	1,981,777.32	227,095
Pacific to Atlantic.				
Belgian	1	4,976	5,710.00	9,500
British	109	569,429	576,694.71	968,379
Danish	1	5,623	5,837.50	10,800
Danzig	14	90,542	92,486.25	162,048
Dutch	4	14,685	15,651.25	26,132
French	5	23,500	25,530.00	40,597
German	4	18,062	19,072.50	33,287
Italian	1	3,961	4,753.20	7,222
Norwegian	20	94,076	101,210.00	179,807
Swedish	2	10,792	11,278.75	20,013
United States	319	1,784,415	1,799,010.86	3,269,542
Totals, calendar year, 1928	480	2,620,061	2,657,235.02	4,727,327
Grand totals, calendar year 1928	981	5,306,038	4,639,012.34	4,954,422
Grand totals, calendar year 1927	1,336	7,641,345	6,659,189.94	7,083,480
Grand totals, calendar year 1926	1,262	7,323,942	6,447,399.40	7,117,408
Grand totals, calendar year 1925	977	5,758,799	5,046,080.70	5,337,398
Grand totals, calendar year 1924	1,320	7,991,887	7,127,218.93	8,050,846

It will be noted that tanker cargoes declined 2,129,058 tons in a comparison of 1928 with 1927. All other cargo in 1927 amounted to 22,019,058 tons and in 1928 to 24,447,159 tons. This was an increase in general cargoes of 2,428,101 tons while tanker cargoes declined over 2,000,000 tons.

CANAL WORK IN DECEMBER, 1928.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of December, 1928.

BALBOA HEIGHTS, C. Z., *January 18, 1929.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of December, 1928. In it have been incorporated the summaries of the traffic through the Canal during the past calendar year.

TRAFFIC FOR CALENDAR YEAR 1928.

Commercial transits for the calendar year ended December 31, 1928, aggregated 6,334, as compared with 6,085 for the calendar year 1927, and 5,420 for the calendar year 1926. The daily average number of commercial transits for the past calendar year was 17.31.

In addition to the 6,334 commercial transits, 513 noncommercial ships, principally United States Army and Navy vessels, and 124 small nonseagoing launches transited the Canal, making the total number of transits for the calendar year, 6,971.

Tolls on the 6,334 commercial vessels transiting the Canal during the past calendar year aggregated $26,375,962.41, or a daily average of $72,065.46.

With respect to the number of transits, Panama Canal net tonnage, tolls collected, and tons of cargo carried, traffic for the calendar year 1928, exceeded that of any previous calendar year, and was the second largest of any calendar or fiscal year since the opening of the Canal, being surpassed only by that during the fiscal year ended June 30, 1928.

The following tabulation gives a ready comparison of the number of vessels, Panama Canal net tonnage, tolls collected, and tons of cargo passing through the Canal during the calendar years 1927 and 1928, by months:

COMMERCIAL TRAFFIC THROUGH THE CANAL DURING THE CALENDAR YEARS 1927 AND 1928, BY MONTHS.[1]

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927.	1928.	1927.	1928.	1927.	1928.	1927.	1928.
January	443	540	2,121,631	2,422,770	2,241,765	2,372,061	$1,984,760.71	$2,212,752.50
February	449	547	2,201,328	2,460,111	2,230,107	2,660,425	1,994,860.82	2,253,755.37
March	496	542	2,413,999	2,441,077	2,533,525	2,428,662	2,217,913.20	2,223,370.57
April	464	531	2,224,500	2,384,491	2,429,807	2,473,884	2,065,206.92	2,187,607.82
May	471	508	2,248,892	2,274,612	2,379,713	2,497,588	2,066,070.73	2,118,969.83
June	455	481	2,152,926	2,227,865	2,229,097	2,139,565	1,970,377.97	2,016,211.09
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	2,215,515.99	2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
September	540	487	2,532,942	2,295,053	2,397,753	2,313,011	2,294,432.34	2,111,230.56
October	567	557	2,585,752	2,515,380	2,717,646	2,582,477	2,380,115.97	2,274,945.30
November	559	527	2,591,717	2,468,297	2,488,882	2,501,630	2,369,267.99	2,225,937.48
December	589	579	2,616,728	2,698,140	2,573,828	2,714,987	2,398,459.75	2,443,029.39
Totals	6,085	6,334	28,610,984	28,943,437	29,102,538	29,401,581	26,231,022.94	26,375,962.41

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

COMMERCIAL TRAFFIC BY CALENDAR YEARS, 1914 TO 1928.

The following statement is a summary of the traffic through the Canal by calendar years since its opening:

Calendar year.	No. of ships.	United States net tonnage.	Panama Canal net tonnage.	Registered.		Tolls.	Tons of cargo.
				Gross.	Net.		
1914 [1]	350	(3)	1,284,293	1,789,721	(3)	$1,508,737.56	1,758,625
1915 [2]	1,154	(3)	3,902,512	(3)	(3)	4,297,467.11	4,893,422
1916 [2]	1,217	3,078,623	3,817,704	(3)	(3)	3,671,162.68	4,774,822
1917	1,960	5,116,001	6,217,054	(3)	(3)	6,107,696.63	7,443,610
1918	2,070	5,369,341	6,409,886	(3)	(3)	6,317,455.39	7,284,159
1919	2,130	5,828,118	6,932,984	7,719,306	4,919,189	6,973,095.30	7,463,151
1920	2,814	8,543,408	10,378,265	13,300,887	8,458,401	10,295,362.21	11,236,119
1921	2,783	9,303,687	11,435,811	14,451,830	9,225,519	11,261,098.80	10,707,095
1922	2,997	10,375,771	12,932,573	16,315,147	10,310,113	12,573,407.77	13,710,556
1923	5,037	19,979,623	24,737,437	31,058,095	19,931,570	22,966,838.18	25,160,545
1924	4,893	19,414,771	24,411,760	31,127,724	19,440,024	22,809,416.34	25,892,134
1925	4,774	18,141,695	22,958,158	29,368,840	18,228,704	21,380,759.70	23,701,277
1926	5,429	20,254,503	25,836,241	33,044,274	20,329,791	23,991,540.04	27,586,051
1927	6,085	22,360,998	28,610,984	36,381,124	22,353,512	26,231,022.94	29,102,538
1928	6,334	22,217,674	28,943,437	36,359,701	22,266,643	26,375,962.41	29,401,581
Totals	50,018		218,869,099			206,671,023.06	230,115,595

[1] Canal opened to traffic August 15, 1914. [2] Canal opened to traffic for approximately 8½ months only. [3] Indicates tonnage figures are not available.

NUMBER OF VESSELS TRANSITING CANAL IN 1928.

The total number of vessels and craft of all kinds transiting the Canal during the calendar year 1928, by months, is shown in the following tabulation:

	Commercial.	Noncommercial.				Launches. [1]	Total.
		United States Army-Navy.	For repairs.	Panaman Government.	Colombian Government.		
January	540	38	2			12	592
February	547	40	2			8	597
March	542	62	4	3		13	624
April	531	58	3			16	608
May	508	35	8	1	2	12	566
June	481	39	6	3		10	539
July	503	28	8	3		10	552
August	526	24	6		1	6	563
September	487	17	3	2	1	11	521
October	577	30	4	1		10	602
November	527	29	1	2		5	564
December	579	45		2		11	637
Totals	6,334	445	47	17	4	124	6,971

[1] Miscellaneous small nonseagoing craft which, although paying tolls, are excluded from the statement of commercial traffic.

CANAL TRAFFIC FOR DECEMBER, 1928.

During the month of December, 1928, 579 commercial vessels and 11 small launches passed through the Canal. In addition to these, there were 45 transits of vessels belonging to or chartered by the United States Government, and 2 transits of a Panaman Government vessel, on which no tolls were charged, making a total of 637 transits for the month, or a daily average of 20.55.

Tolls on the commercial vessels amounted to $2,443,029.39, and on the launches, $83.85, a total of $2,443,113.24, or a daily average on all traffic of $78,810.11.

The amount of tolls collected on commercial vessels during December, 1928, establishes a new high record for tolls collection in one month, exceeding the previous record made in December, 1927, by some $45,000. The number of commercial transits, 579, during the past month, while the highest for the calendar year and the second highest in the history of the Canal to date, fell short by 10 of the record of 589 established in December, 1927.

The total numbers of craft of all kinds transiting the Canal during the month of December, as compared with the same months in 1927 and 1926, is shown in the following tabulation:

	December, 1928.	December, 1927.	December, 1926.
Commercial vessels	579	589	458
Noncommercial vessels (Army and Navy)	45	28	42
Launches (under 20 tons)	11	14	22
Panaman Government vessels	2		
Colombian Government vessels		1	2
Vessels for repairs		4	3
Totals	637	636	527

In addition to the vessels listed above, Panama Canal equipment, consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

Locks.	Northbound.	Southbound.	Total.
Gatun	10	17	27
Pedro Miguel	31	38	69
Miraflores	33	40	73
Totals	74	95	169

The following is a summary of the commercial traffic for December, 1928, as compared with the corresponding month in 1927 and 1926, and the monthly average for the calendar year 1928:

	December, 1928.	December, 1927.	December, 1926.	Average per month for calendar year.
Number of vessels	579	589	458	528
Panama Canal net tonnage	2,698,140	2,616,728	2,135,002	2,411,953
United States net tonnage	2,055,648	2,043,876	1,684,910	1,851,471
Registered gross tonnage	3,359,731	3,314,550	2,760,158	3,029,975
Registered net tonnage	2,056,933	2,036,569	1,687,396	1,855,554
Tolls	$2,443,029.39	$2,398,459.75	$1,996,036.72	$2,197,996.86
Tons of cargo carried	2,714,987	2,573,828	2,310,270	2,450,132

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per vessel.			Average per day for calendar year.
	December, 1928.	December, 1927.	December, 1926.	
Number of transits	18.67	19.00	14.77	17.31
Panama Canal net tonnage	87,037	84,411	68,871	79,080
Tolls	$78,807.39	$77,369.67	$64,388.28	$72,065.47
Tons of cargo carried	87,580	83,027	74,524	80,332

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of December, 1928, as compared with December, 1927 and 1926, are shown in the following tabulation:

	Average per vessel.		
	December, 1928.	December, 1927.	December, 1926.
Panama Canal net tonnage	4,660	4,443	4,661
United States net tonnage	3,550	3,470	3,678
Registered gross tonnage	5,803	5,610	6,026
Registered net tonnage	3,553	3,457	3,684
Tolls	$4,219.39	$4,072.09	$4,358.15
Tons of cargo (including vessels in ballast)	4,689	4,370	5,044
Tons of cargo (laden vessels only)	5,740	5,465	6,079

TOLLS.

At present tolls are collected at rates of $1.20 per net ton for laden vessels and 72 cents per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed $1.25 per ton nor be less than 75 cents per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined both in accordance with the Panama Canal and the United States rules of measurement.

Due to this limiting proviso the tolls actually collected on laden vessels averaged $0.943 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of December, 1928, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian	$10,181.92	$8,702.60		$1,479.32
British	788,183.28	809,956.40	$21,773.12	
Chilean	8,623.75	9,377.00	753.25	
Colombian	931.75	797.00		134.75
Danish	38,756.73	39,092.40	335.67	
Danzig	10,996.44	9,803.20		1,193.24
Dutch	36,407.50	43,521.00	7,113.50	
French	[1] 58,962.45	[1] 60,541.50	1,579.05	
German	100,492.42	116,303.60	15,811.18	
Greek	51,501.67	54,108.60	2,606.93	
Italian	54,832.06	55,684.20	1,852.14	
Japanese	77,320.60	70,249.00		7,071.60
Norwegian	108,471.50	114,674.00	6,202.50	
Panaman	11,675.50	11,614.00		61.50
Peruvian	11,623.55	14,713.00	3,089.45	
Spanish	18,045.79	17,017.20		1,028.59
Swedish	50,201.28	52,088.20	1,886.92	
United States	969,149.35	983,619.20	14,469.85	
Yugoslav	36,671.85	36,648.00		23.85
Totals	2,443,029.39	2,509,510.10	77,473.56	10,992.85
Net increase for all traffic			66,480.71	

[1] Includes $6,608.50 collected for naval vessel at 50 cents per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$17,547.34
United States foreign trade	[1] 2,433.16
United States–Canal Zone trade	[1] 644.33
Net increase	14,469.85

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in December, 1928, is shown in the following tabulation segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian	1.62		1.62
British	.87	1.35	1.12
Chilean	.54	1.18	.86
Colombian	1.55	1.66	1.60
Danish	1.06	1.77	1.41
Danzig		1.81	1.81
Dutch	.74	1.40	1.22
French	.55	1.70	1.12
German	.90	1.27	1.10
Greek		1.82	1.82
Italian	.24	1.15	.70
Japanese	1.35	1.41	1.39
Norwegian	1.21	1.71	1.48
Panaman	2.59	1.31	1.33
Peruvian	.53	1.10	.95
Spanish	.08	1.45	1.19
Swedish	1.06	2.62	2.09
United States	.92	1.52	1.25
Yugoslav	1.33	1.92	1.83
Average, December, 1928	.87	1.50	1.23
Average, December, 1927	.81	1.55	1.24
Average, December, 1926	.94	1.57	1.29

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of December, 1928, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tanks ships:						
Laden	3	14,671	$16,308.75	36	189,941	$195,095.00
Ballast	41	215,076	154,854.72	1	4,962	3,572.64
General cargo ships:						
Laden	208	947,001	874,583.45	226	1,039,557	982,709.65
Ballast	59	267,595	192,549.38	.....	.....	.....
Noncargo-carrying ships:						
Naval	1	.....	6,698.50	.....	.....	.....
Passenger [1]	1	18,874	16,412.50	.....	.....	.....
Yachts	2	404	290.88	1	59	43.92
Totals	315	1,463,621	1,261,608.18	264	1,234,519	1,181,421.21
Method of propulsion:						
Steam	246	1,144,533	1,008,116.66	218	1,002,795	960,096.74
Motor	68	318,959	253,398.64	45	231,665	221,280.55
Motor (schooner)	1	129	92.88	1	59	43.92
Totals	315	1,463,621	1,261,608.18	264	1,234,519	1,181,421.21

[1] Vessel carrying tourists.

Of the 464 steam-driven vessels, 258 were oil burning, 201 coal burning, and 5 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of December, 1928. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as follows:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Cargo ships	1	[3] 3,415	$4,268.75	.....	.....	.....
Cruisers	1	[2] 3,200	1,600.00	1	[2] 3,200	$1,600.00
Mine sweepers	1	[1] 950	475.00	1	[1] 950	475.00
Motor sailors	1	[3] 10	7.50	.....	.....	.....
Submarines	6	[2] 3,454	1,727.00	6	[2] 3,454	1,727.00
Tugs	4	[2] 3,279	1,639.50	5	[2] 4,279	2,139.50
U. S. Army vessels:						
Launches	2	[3] 20	15.00	.....	.....	.....
Mine planters	.....	.....	.....	1	[2] 1,208	604.00
Transports	1	[3] 3,908	4,885.00	4	[3] 15,632	19,540.00
Tugs	1	[3] 46	34.50	1	[3] 46	34.50
U. S. Treasury Department vessels:						
Coast Guard	1	[2] 2,075	1,037.50	.....	.....	.....
Cutters	7	[2] 2,590	1,295.00	.....	.....	.....
Totals, U. S. Government	26	.....	16,984.75	19	.....	26,120.00
Panaman Government vessels:						
Transports	1	[3] 98	73.50	1	[3] 98	73.50
Grand totals	27	.....	17,058.25	20	.....	26,193.50

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage

The foregoing noncommercial vessels transiting the Canal during the month of December, 1928, carried cargo as follows: Atlantic to Pacific, 4,067 tons; Pacific to Atlantic, 1,020 tons; total, 5,087.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement transiting the Canal during the month of December, 1928. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific	5	35	$34.80	.....
Pacific to Atlantic	6	54	49.05	20
Totals	11	89	83.85	20

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of December, 1928, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving, tons	68,256	44,921	113,177
Local cargo shipped, tons	9,653	1,261	10,914
Transit cargo arriving, tons	2,723,013	2,706,706	5,429,719
Transit cargo clearing, tons	2,704,168	2,700,654	5,404,822
Cargo received for transshipment, tons	46,917	319	47,236
Cargo transshipped, tons	40,435	1,161	41,596
"Canal Zone for Orders" cargo:			
Number of receipts issued	83	26	109
Number of withdrawals	481	152	633
Tons received	3,732	398	4,130
Tons withdrawn	2,705	167	2,872
Packages received	12,877	4,331	17,208
Packages withdrawn	5,814	1,897	7,711
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company	92	.....	92
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company, tons	29,446	.....	29,446
Coal issued, miscellaneous:			
Panama Canal departments, tons	108	10	118
U. S. Army, including vessels, tons	266	1	267
Individuals and companies, tons	111	.....	111
Panama Railroad Company, tons	.....	1	1
Transferred to Navy, tons	12	.....	12
Total sales and issues, tons	29,943	12	29,955
Coal on hand, December 1, 1928, tons	48,058	.....	48,058
Coal on hand, January 1, 1929, tons	38,261	.....	38,261
Coal received during month, tons	20,146	.....	20,146
Coal received from Navy, tons	.....	12	12
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments, bbls	6,318.32	13,422.56	19,740.88
Panama Railroad Company, bbls	518.66	.....	518.66
U. S. Army and Navy, bbls	.....	793.52	793.52
Individuals and companies, bbls	.....	123.15	123.15
Total sales and issues, bbls	6,836.98	14,339.23	21,176.21
Fuel oil received during December, 1928, bbls	.....	60,896.10	60,896.10
Fuel oil on hand, January 1, 1929, bbls	51,167.56	92,044.14	143,211.70
Diesel oil received during December, 1928, bbls	.....	131.66	131.66
Diesel oil sold during December, 1928, bbls	134.90	131.66	266.56
Diesel oil on hand, January 1, 1929, bbls	23,235.20	493.25	23,728.45
Miscellaneous transfers, bbls	15,878.40	972.89	16,851.29
Gasoline and kerosene pumped for The Panama Canal, bbls	9,202.94	2,823.32	12,026.26
Gasoline pumped for individuals and companies, bbls	10,535.42	24,348.72	34,854.14
Oil pumped for individuals and companies, bbls	504,715.38	388,876.00	893,591.38
Oil pumped for U. S. Shipping Board, bbls	.....	3,549.00	3,549.00
Oil pumped for U. S. Navy, bbls	1,287.00	3,243.00	4,530.00
Total fuel oil, gasoline, and kerosene handled, bbls	548,561.02	499,179.92	1,047,740.94
Admeasurement of vessels:			
U. S. equivalent certificates issued	37	7	44
Measured for Panama Canal net tonnage	10	4	14
Remeasured for Panama Canal net tonnage	32	5	37
Panama Canal net tonnage corrected	1	9	10
U. S. equivalent tonnage corrected	19	14	33
Services of harbor equipment:			
Tugs, total operating hours	589½	418	1,007½
Launches, total operating hours	1,649½	1,702	3,351½

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc.:			
Tug revenue	17,437.50	13,691.50	31,129.00
Pilotage	21,425.00	8,518.00	29,943.00
Seamen	14,720.00	12,390.00	27,110.00
Launch service	2,434.00	3,179.50	5,613.50
Wharfage	18,307.08	6,074.73	24,381.81
Ships measured	400.00	165.00	565.00
Miscellaneous	978.00	1,255.50	2,233.50
Ships repaired at Panama Canal shops:			
Commercial	54	15	69
U. S. Army and Navy	4	6	10
Panama Canal equipment	8	7	15
Totals	66	28	94
Vessels dry-docked:			
Commercial	7	1	8
U. S. Army and Navy	2	4	6
Panama Canal equipment	1	4	5
Totals	10	9	19
Clearances issued	327	320	647
Bills of health issued	327	327	654

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	665	3,846,680	2,353,243	618	3,475,891	2,141,324
Vessels entering port but not transiting Canal	68	373,299	219,844	17	49,804	34,730
Vessels transiting Canal and handling passengers and cargo at terminal ports	128	721,044	430,529	98	601,694	358,973
Ships clearing.						
All vessels, including those transiting Canal	663	3,824,191	2,345,232	616	3,477,861	2,143,763
Vessels clearing port but not transiting Canal	70	375,531	221,920	17	58,793	43,719
Vessels transiting Canal and handling passengers and cargo at terminal ports	130	727,818	434,596	100	610,378	363,531

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,804	1,189	2,993	193	441	634
From Pacific ports	207	137	344	346	245	591
Total disembarking	2,011	1,326	3,337	539	686	1,225
Embarking:						
For Atlantic ports	1,294	935	2,229	53	360	413
For Pacific ports	356	191	547	402	976	1,378
Total embarking	1,650	1,126	2,776	455	1,336	1,791
Remaining on board:						
From Atlantic to Pacific ports	1,829	2,046	3,875	1,994	1,576	3,570
From Pacific to Atlantic ports	1,034	1,587	2,621	1,209	1,552	2,761
From Atlantic to Atlantic ports	2,360	158	2,518	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	136	47	183
Total remaining on board	5,223	3,791	9,014	3,339	3,175	6,514
Total arriving	7,234	5,117	12,351	3,878	3,861	7,739
Total departing	6,873	4,917	11,790	3,794	4,511	8,305

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	315	64	20.3
Pacific to Atlantic	264	66	25.0
Totals	579	130	22.4

In addition to the aforesaid, 67 passenger-carrying vessels called at the port of Cristobal and 2 at Balboa without transiting the Canal, making a total of 199 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of December, 1928:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$3,801.17	$16,088.74	$44,613.94	$355.25	$8,009.66	$72,868.76
Government vessels	258.75	1,535.10	11,376.76	6.91	687.51	13,865.03
Panama Railroad vessels		42.94	1,691.34	762.98	419.78	2,917.04
Total sales, December, 1928.	4,059.92	17,666.78	57,682.04	1,125.14	9,116.95	89,650.83
Total sales, December, 1927.	2,418.19	12,368.62	33,935.66	977.92	6,337.90	56,038.29
Total sales, December, 1926.	2,056.28	11,870.53	38,797.07	1,010.15	5,041.46	58,775.49
Sales at Balboa to:						
Commercial vessels	1,480.06	8,325.61	23,769.81	400.46	3,276.36	37,252.30
Government vessels	1,617.70	2,508.91	16,349.85	261.87	490.16	21,228.49
Panama Railroad vessels				74.80		74.80
Total sales, December, 1928.	3,097.76	10,834.52	40,119.66	737.13	3,766.52	58,555.59
Total sales, December, 1927.	2,128.87	12,592.94	28,884.47	1,028.67	3,644.56	48,279.51
Total sales, December, 1926.	1,116.73	13,322.19	19,671.13	270.19	4,080.87	38,461.11

The aggregate sales to Government vessels during the month was $35,093.52; to Panama Railroad vessels, $2,991.84; and to other commercial vessels, $110,121.06; making the total sales to all vessels, $148,206.42.

LOCK OPERATION.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of December, 1928, as compared with the corresponding month in 1927 and 1926:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Dec., 1928.	Dec., 1927.	Dec., 1926.
Gatun	254	294	548	11	9	20	568	563	441
Pedro Miguel	256	309	565	16	20	36	601	597	482
Miraflores	255	303	558	14	18	32	590	592	475
	Number of vessels put through locks.								
Gatun	265	315	580	40	52	92	672	652	566
Pedro Miguel	265	314	579	61	75	136	715	677	592
Miraflores	265	314	579	64	78	142	721	678	588

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	51	53	55
Panama Canal equipment	27	69	73
Launches (under 20 tons)	12	12	12
Panaman Government vessels	2	2	2

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in December, 1928, as compared with the preceding month and the corresponding month in 1927:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	2,261,230,000	2,041,870,000	1,827,580,000
Leakage	20,000,000	30,500,000	20,000,000
Maintenance	9,770,000	.....	32,450,000
Totals, December, 1928	2,291,000,000	2,072,370,000	1,880,030,000
Totals, December, 1928	2,171,460,000	1,761,940,000	1,699,860,000
Totals, December, 1927	2,287,520,000	1,989,370,000	1,843,600,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of December, 1928, are shown in comparative form in the following tabulation:

	December.		December—Years of record.		
	1928.	1927.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	3,884	5,444	17,300	1,265	3,792
Maximum momentary discharge for the month	16,510	31,182	[1] 154,000	.....	...
Gatun Lake watershed, total yield	10,959	10,436	10,959	3,005	7,405
Gatun Lake watershed, net yield	10,370	9,883	10,370	2,158	6,778
Draft on Gatun Lake for lockages and power	3,054	2,984	3,054	[2] 1,091	[2] 2,326

[1] December 26, 1909. [2] Does not include December, 1914.

The total yield of the Gatun Lake watershed for the month of December was 48 per cent above the 15-year December average, or 10,959 c. f. s., compared with an average of 7,405 c. f. s. It is the highest total yield on record for December and was due primarily to storms of the semi-norther type that occurred over the lower Gatun Lake region on December 9 and 21. The minimum total yield of record for December is 3,005 c. f. s. in 1918. The lake varied in elevation from 86.40 feet on the 9th to 87.12 feet on the 8th and 19th; averaged 86.95 feet, and ended at an elevation of 87.02 feet. Miraflores Lake varied from an elevation of 53.40 feet on the 1st to 54.48 feet on the 6th, averaged 53.99 feet, and ended at an elevation of 53.88 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 1st, 2d, 3d, 4th, 12th, 16th, 19th, and 26th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,094,400 kilowatt hours, and the computed water consumption was 3,868,585,535 cubic feet. Continuous service was maintained through the month. The Miraflores Diesel-electric station had a gross generator output of 1,100 kilowatt hours, with a fuel oil consumption of 15.10 barrels.

In addition to the usual operating and maintenance work performed, 44 work orders, comprising 57 items of additions or repairs were completed on 33 vessels during the month. There were 355 work orders issued during the month, as compared with 378 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 66 vessels at Cristobal and 28 at Balboa. Ten vessels were dry-docked at Cristobal and 9 at Balboa. Repairs were completed on the United States Army transport *Somme*, and work was carried forward on the submarines *S–14* and *S–17*.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. On the new Alhajuela road, 1,000 linear feet of road were cleared during the month and 8,360 cubic yards were excavated. Engineering work was continued in final road location. Preliminary work at Alhajuela in connection with the construction of the dam was continued during the month.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 732,555,250 gallons.

DREDGING DIVISION.

South Cucaracha slide continued to show a slight general movement throughout the month. A dredge worked 7 days in front of this slide, removing 16,850 cubic yards from the Canal prism. The rock point at West Lirio slide continued to break up during the month and push across the new prism line. One section of Lirio Curve showed a general movement toward the Canal. A dredge worked at both the latter places during the month, removing 64,000 cubic yards of slide material. East Culebra slide showed a slight general movement toward the Canal but there was no encroachment in channel limits. West Culebra slide showed no movement during the month.

There were no other slides and no delays to shipping during the month.

The total excavation during December, 1928, was 235,150 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Project No. 2, Lirio curve		7,200	7,200
West Lirio slide	9,600	54,400	64,000
South Cucaracha slide	4,250	12,600	16,850
Project No. 9, West Culebra basin	600	3,500	4,100
Canal prism, Pacific entrance—			
Maintenance	61,000		61,000
Balboa inner harbor—			
Project No. 1		28,600	28,600
Maintenance	400		400
Plant excavation:			
Naval Air Station fill, Coco Solo	15,500	34,000	49,500
Mechanical Division, Coco Solo		500	500
Mechanical Division, Balboa	2,000		2,000
Dredging sand at Chame	1,000		1,000
Totals	94,350	140,800	235,150

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Four hundred and ninety-four trips were made, and 410 Panama Canal, 9 U. S. Army, and 2,072 other vehicles, a total of 2,491, were ferried across the Canal.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on December 31, 1928, totaled 20,935, composed of 6,982 Americans, 2,705 of whom were men, 2,366 women, and 1,911 children; 216 Europeans, 76 of whom were men, 36 women, and 104 children; and 13,737 West Indians, 3,958 of whom were men, 2,589 women, and 7,190 children. The total number of persons in quarters on December 31, 1927, was 21,077.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of December 19, 1928, with a comparison of the working force for the preceding month and for December, 1927:

	As of December 19, 1928.			Total employees.	
	Gold.	Silver.	Total.	November, 1928.	December, 1927.
Operation and Maintenance:					
Office	43	52	95	100	78
Electrical	160	170	330	309	330
Municipal Engineering	106	1,127	1,233	1,060	675
Lock Operation	238	761	999	920	875
Dredging	175	904	1,079	1,102	1,026
Mechanical	465	874	1,339	1,365	1,329
Marine	208	749	957	866	782
Fortifications	23	277	300	292	237
Totals	1,418	4,914	6,332	6,014	5,332

	As of December 19, 1928.			Total employees.	
	Gold.	Silver.	Total.	November, 1928.	December, 1927.
Supply Department:					
Quartermaster	134	1,767	1,961	2,005	1,887
Subsistence	8	102	110	111	103
Commissary	220	1,269	1,489	1,459	1,328
Cattle Industry	6	144	150	143	252
Hotel Washington	9	102	111	105	107
Transportation	57	211	268	258	250
Totals	494	3,595	4,089	4,081	3,927
Accounting Department	195	9	204	205	208
Health Department	268	807	1,075	1,115	1,071
Executive Department	514	299	813	816	791
Totals	977	1,115	2,092	2,136	2,070
Panama Railroad Company:					
Superintendent	50	303	353	332	279
Transportation	63	118	181	180	181
Receiving & Forwarding Agency	91	1,684	1,775	1,482	1,371
Coaling stations	48	245	293	359	318
Totals	252	2,350	2,602	2,353	2,149
Grand totals, December, 1928	3,141	11,974	15,115	.....	.....
Grand totals, November, 1928	3,120	11,464	.....	14,584	.....
Grand totals, December, 1927	2,979	10,499	.....	.....	13,478

Additions to the gold force on the Isthmus in December were as follows: Employed in the United States, 15; reemployed in the United States, 2; employed on the Isthmus, 17; reemployed on the Isthmus, 10; total, 44. Separations from the gold force totaled 37; as follows: Resigned, 19; discharged, 15; retired, 1; died, 2. At the end of the month there were on file 162 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 217 deaths occurred during the month of December, 1928, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 20.11 per 1,000 poulation. The leading causes of death were: Pneumonia (broncho and lobar), 43; tuberculosis (various organs), 34; diarrhea and enteritis, 19; organic diseases of the heart, 12; and syphilis, 9. There were 7 deaths from cancer, 6 from nephritis (acute and chronic), 5 from apoplexy, 2 from diphtheria, 2 from meningococcus meningitis, and 1 each from paratyphoid fever, measles, erysipelas, and tetanus. There were 10 deaths among nonresidents. These are not included in the above statistics.

There were 320 live births, and 16 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 31.13 per 1,000 population. Deaths among children under 1 year of age numbered 63, giving an infant mortality rate of 196.88.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during December was 97, of whom 16 were employees (2 white and 14 colored), 7 were members of employees' families (2 white and 5 colored), 12 were Canal Zone agriculturists, 20 were other civilian nonemployees, and 42 were Army and Navy personnel. Of the 23 employees and members of employees' families, 17 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick. There were 2 deaths from malaria, both children of Zone farmers.

A case of smallpox was admitted to hospital from Colon on December 31. This is the first case of smallpox originating in either of the terminal cities on the Canal Zone since August, 1922.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $316,941.20, of which $294,967.85 was for the Department of Operation and Maintenance and $21,973.35 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to $48,467.60.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of November, 1928, as compared with November, 1927, and the figures for the first five months of the current fiscal year as compared with the same period in the fiscal year 1928.

It is impossible to submit the figures for the month of December at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	November, 1928.	November, 1927.	To end of November.	
			This year.	Last year.
Tolls	$2,225,957.88	$2,369,385.80	$10,918,322.87	$11,533,826.87
Other receipts	326,229.90	283,475.01	1,589,098.65	1,436,044.04
Total transit revenues	2,552,187.78	2,652,860.81	12,507,421.52	12,969,870.91
Total transit expenses	1,037,992.72	1,010,334.33	5,238,609.85	4,932,845.73
Net transit revenues	1,514,195.06	1,642,526.48	7,268,811.67	8,037,025.18
Three per cent capital charge	615,967.41	611,042.69	3,079,090.26	3,053,410.90
Transit surplus	898,227.65	1,031,483.79	4,189,721.41	4,983,614.28
Business revenues	1,443,894.85	1,142,283.06	6,511,602.74	6,191,975.75
Business expenses	1,372,195.88	1,115,362.85	6,180,198.67	5,832,642.35
Net business revenues	71,698.97	26,920.21	331,404.07	359,333.40
Three per cent capital charge	61,003.64	60,418.14	316,649.44	313,851.58
Business surplus	10,695.33	[1] 33,497.93	14,754.63	45,481.82
Combined revenues	3,996,082.63	3,795,143.87	19,019,024.26	19,161,846.66
Combined expenses	2,410,188.60	2,125,697.18	11,418,808.52	10,765,488.08
Net revenues	1,585,894.03	1,669,446.69	7,600,215.74	8,396,358.58
Three per cent capital charge	676,971.05	671,460.83	3,395,739.70	3,367,262.48
Combined surplus	908,922.98	997,985.86	4,204,476.04	5,029,096.10

[1] Indicates deficit.

Respectfully,

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending January 19, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Ancon	Panama Railroad S. S. Line		January 6		2,982
Kinderdijk	Holland-American Line		January 6		120
Feltre	Nav. Libera-Triestina		January 6		49
Cali	North German Lloyd		January 6		402
Calamares	United Fruit Co	January 6	January 6	28½	315
Saint Jean	French Line	January 6	January 7	450	[2]
Ecuador	Panama Mail S. S. Co	January 6	January 7	625	233
Hvoslef	United Fruit Co		January 7		1,063
Cartago	United Fruit Co		January 7		2
Wanks	Standard Fruit & S. S. Corp		January 7		8
Ebro	Pacific Steam Navigation Co	January 7	January 8	12	18½
Mayari	United Fruit Co	January 7	January 8	674	[2]
Guatemala	Panama Mail S. S. Co	January 7	January 8	845	973
Pastores	United Fruit Co	January 7	January 9	1,250	98
Theodore Roosevelt	Fred Olsen & Co	January 8	January 9	299	[2]
Breda	Royal Netherlands S. S. Co	January 8	January 9	290	136
Perene	Peruvian Line	January 8	January 9	266	161
Spreewald	Hamburg-American Line	January 8	January 9	22	34
Saint Joseph	French Line	January 8	January 9	764	[2]
Loreto	Pacific Steam Navigation Co	January 8	January 9	416	210½
Deroche	Union Oil Co	January 8	January 10	11,000	[2]
Narenta	Pacific Steam Navigation Co	January 8	January 10	17	252
Iriona	United Fruit Co	January 9	January 9	631	67
Almelo	Royal Netherlands S. S. Co	January 9	January 9	70	[2]
Crijnssen	Royal Netherlands S. S. Co	January 9	January 10	62	538
Granada	Standard Fruit & S. S. Corp	January 9	January 11	423	490

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Sixaola	United Fruit Co	January 9	January 10	680	976
Guayaquil	Panama Railroad S. S. Line	January 9	January 11	235	.....
Cerigo	Hamburg-American Line	January 9	January 12	681	245
City of Panama	Panama Mail S. S. Co	.....	January 10	.....	3,265
Mayan	Gulf-Caribbean S. S. Co	January 10	January 10	164	(2)
Mayari	United Fruit Co	January 10	January 10	(1)	22
Cauca	National Navigation Co	January 10	.....	264	.....
Linda S.	R. Feuillebois	January 10	January 10	(1)	36
Parthenia	Donaldson Line	January 10	January 11	(1)	315
Suriname	United Fruit Co	January 11	January 11	47	164
President Adams	Dollar Line	January 11	.....	100	.....
Hans Leonhardt	Colombian Transport Co	January 11	January 12	99	(2)
Wanks	Standard Fruit & S. S. Corp	January 11	.....	81	.....
San Pablo	United Fruit Co	January 11	.....	405	.....
Acajutla	Pacific Steam Navigation Co	January 12	.....	911	.....
Oroya	Pacific Steam Navigation Co	January 12	January 12	½	212
Galicia	Hamburg-American Line	January 12	.....	38	.....
Rapot	North German Lloyd	January 12	.....	54	.....
William M.	R. Feuillebois	January 12	January 12	(1)	32
Stella	Panama Mail S. S. Co	January 12	.....	603	.....
Baralt	Royal Netherlands S. S. Co	January 12	.....	884½	.....
Parismina	United Fruit Co	January 12	.....	381	.....
Puerto Rico	French Line	January 9	January 11	312	1,016
Caldas	National Navigation Co	.....	January 11	.....	180
La Perla	United Fruit Co	.....	January 10	.....	250
San Pablo	United Fruit Co	.....	January 13	.....	455
Galicia	Hamburg-American Line	.....	January 13	.....	1,264
Rapot	North German Lloyd	.....	January 13	.....	277
Pastores	United Fruit Co	January 13	January 13	23¾	57
Antillian	Leyland Line	January 13	.....	59	.....
Santa Tecla	N. O. & S. A. S. S. Line	January 14	January 14	105	180
Santa Teresa	Grace Line	January 14	January 14	(1)	160
Baralt	Royal Netherlands S. S. Co	.....	January 14	.....	61
Parismina	United Fruit Co	.....	January 14	.....	188
Salvador	Pacific Steam Navigation Co	.....	January 14	.....	1,132
Stella	Panama Mail S. S. Co	.....	January 15	.....	1,341
San Pedro	Hammond Lumber Co	January 14	January 16	1,191	(2)
Nike	Anglo-Saxon Petroleum Co	January 14	January 16	13,513	(2)
Managui	United Fruit Co	January 14	January 16	7	1,152
Buenos Aires	Johnson Line	January 15	January 16	(1)	243
Minnesota	French Line	January 15	January 16	70	19
Saint Louis	French Line	January 15	January 16	354	131
Wanks	Standard Fruit & S. S. Co	.....	January 16	.....	6¼
Manizales	North German Lloyd	January 15	January 18	731	284
Cristobal	Panama Railroad S. S. Line	January 16	.....	4,202	.....
Coppename	United Fruit Co	January 16	January 17	1,858	109
San Jose	United Fruit Co	January 16	January 17	1,457	230
Carare	Elders & Fyffes, Ltd	January 16	January 17	12½	989
London Importer	Furness, Withy & Co	January 16	January 17	(1)	315
Gatun	Standard Fruit & S. S. Corp	January 16	January 18	471	509
Ucayali	Peruvian Line	January 16	.....	2,170	.....
Alvarado	Pacific Steam Navigation Co	January 16	January 18	679	831
Sixaola	United Fruit Co	January 17	January 17	2¼	330¼
Buenaventura	Panama Railroad S. S. Line	January 17	January 18	445	129
Zacapa	United Fruit Co	January 17	January 18	779	699
Ulua	United Fruit Co	January 17	January 18	907	324
Martha	Chr. Hannevig	January 18	.....	961	.....
Iriona	United Fruit Co	January 18	January 18	144	287
Wanks	Standard Fruit & S. S. Corp	January 18	.....	75	.....
Carl Legien	Hamburg-American Line	January 18	January 19	44	368
Finn	Colombian Transport Co	January 19	January 19	39	(2)
Venezuela	Panama Mail S. S. Co	January 19	.....	803	.....
Heredia	United Fruit Co	January 19	.....	463	.....
Legazpi	Spanish Line	January 19	.....	89	.....
Sosua	United Fruit Co	January 19	January 19	(1)	349
Oranian	Leyland Line	January 19	.....	591	.....

(1) No cargo discharged. (2) No cargo laded.

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season.
	Average.	Maximum.	Minimum.	Average temperature. Degrees F.
Cristobal (between docks 8 and 9)	1018	1020	1013	84.0
Balboa (dock 18)	1011	1021	1005	83.0

(NOTE—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, January 19, 1929.

THROUGH THE CANAL—ATLANTIC to PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Curaca	12	18.33	13	6.15	13	13.28	13	15.40	American	Grace Line	403.0	52.0	16.2	New York, N. Y.	Valparaiso, Chile	General	1,773	6,804	4,897
Canadolite [1] [2]	12	23.35	13	7.15	13	14.31	13	15.45	British	Imperial Oil Co.	510.0	68.0	29.6	Newport News, Va.	Talara, Peru	Ballast		11,556	6,772
Montanan	13	2.00	13	8.25	13	15.37	13	16.40	American	Amer.-Hawaiian Line	404.0	53.0	18.0	Boston, Mass.	Portland, Oreg.	General	2,654	6,756	4,775
Japanese Prince [2]	13	5.40	13	9.30	13	17.52	13	19.00	British	Prince Line, Ltd.	441.0	60.0	25.0	New York, N. Y.	Manila, Philippines	General	7,029	9,240	6,152
Suraiico	13	11.10	13	11.25	13	19.10	13	20.10	American	Transmarine Lines	324.0	46.0	19.6	New York, N. Y.	San Francisco, Cal.	(7)	2,084	3,984	2,628
Indien [2]	13	17.15	13	17.30	14	00.44	14	2.00	Danish	Canadian Transp. Co	390.0	53.2	24.0	New York, N. Y.	Yokohama, Japan	Fertilizer	6,000	6,173	4,418
Rapot	12	23.26	13	20.55	14	4.52	15	2.42	German	North German Lloyd	393.0	54.0	26.2	Hamburg, Germany	San Antonio, Chile	General	7,029	6,583	4,626
Bagaduce [3]			14	6.00	14	17.17			American	U. S. Navy	149.3	30.0		Cristobal, C. Z	Balboa, C. Z.	Ballast			
President Adams	11	22.05	14	6.15	14	20.45			American	Dollar Line	502.0	62.2	27.0	New York, N. Y.	San Francisco, Cal.	General	3,561	12,057	8,457
S-15 [4]			14	6.00	14	17.15			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z.				
S-16 [4]			14	6.00	14	17.15			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z.				
O-6 [4]			14	6.00	14	17.15			American	U. S. Navy	172.4	18.0		Cristobal, C. Z	Balboa, C. Z.				
O-8 [4]			14	6.00	14	17.15			American	U. S. Navy	172.4	18.0		Cristobal, C. Z	Balboa, C. Z.				
O-9 [4]			14	6.00	14	17.15			American	U. S. Navy	172.4	18.0		Cristobal, C. Z	Balboa, C. Z.				
O-10 [4]			14	6.00	14	17.15			American	U. S. Navy	172.4	18.0		Cristobal, C. Z	Balboa, C. Z.				
Baralt	12	21.55	14	7.20	14	18.25	14	19.45	Dutch	Royal Neth. S. S. Co	210.0	33.0	11.7	Cristobal, C. Z	Guayaquil, Ecuador	General	61	1,183	742
La Perla	14	4.25	14	7.25	14	18.20	14	19.45	American	United Fruit Co	325.2	48.1	21.4	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee.	765	4,033	3,268
Marsodak	14	5.50	14	7.52	14	21.20	15	1.15	American	Charles Nelson & Co	324.0	46.0	20.0	Baltimore, Md	San Francisco, Cal.	General	3,500	3,984	2,628
Salvador	5	20.35	14	9.00	14	21.30	14	22.55	British	Pacific Steam Nav. Co	215.0	33.5	16.5	Cristobal, C. Z	Champerico, Guat	General	1,050	1,270	735
Antares [5]	14	6.10	14	11.20	14	22.47			American	U. S. Navy	401.0	54.0	19.3	Norfolk, Va.	Balboa, C. Z	Naval supplies			
Silverguava [2]	14	11.10	14	11.45	14	23.44	15	00.44	British	Kerr S. S. Co	425.6	58.3	20.5	New York, N. Y.	Singapore, St. Set.	General	4,072	8,216	6,037
Santa Tecla	14	2.55	14	13.40	14	23.54	15	00.55	American	N. O. & S. A. S. S. Co	298.0	40.0	18.4	New Orleans, La.	Talcahuano, Chile	General	1,867	2,832	1,803
Hawaii Maru	14	10.40	14	13.40	15	1.18	15	2.19	Japanese	Osaka Shosen Kaisha	475.0	61.0	21.0	Buenos Aires, Arg	Kobe, Japan	(8)	3,476	10,173	7,354
Trontolite [1] [2]	13	21.50	14	14.58	15	2.19	15	5.18	British	Imperial Oil Co	420.8	57.0	22.9	Halifax, N. S.	Los Angeles, Calif.	Ballast		7,226	4,649
Bienvenido	14	12.35	14	15.15	15	1.13	15	2.19	British	P. N. & J. N. Carranza.	210.3	32.0	13.0	Guanta, Venezuela.	Buenaventura, Col.	Cattle	115	1,345	806
Santore	14	4.10	14	15.30	15	3.20	15	4.31	American	Ore S. S. Corp	449.0	57.2	20.8	Baltimore, Md.	Cruz Grande, Chile	Ballast		7,808	5,139
Silverpine [2]	14	18.55	14	20.05	15	4.19	15	5.18	British	Kerr S. S. Co	400.3	55.3	16.0	Baltimore, Md.	Shanghai, China.	General	2,436	7,473	5,644
Stella	12	9.10	15	6.05	15	19.08	15	20.25	Norwegian	Panama Mail S. S. Co	195.1	32.9	15.2	Cristobal, C. Z.	Puntarenas, C. R	General	1,337	985	606
Birmingham City	15	00.50	15	6.35	15	19.05	15	20.15	American	Isthmian S. S. Lines	395.5	55.0	25.0	Baltimore, Md.	Vancouver, B. C.	(9)	7,356	7,304	5,188
C. O. Stillman [1] [2]	14	23.40	15	6.55	15	20.35	15	22.25	British	Inter. Petroleum Co.	565.7	75.6	28.0	New York, N. Y.	Los Angeles, Calif.	Ballast		16,780	9,885
Witram	15	4.20	15	7.25	15	21.23	15	23.37	German	North German Lloyd	449.1	58.0	20.6	Bremen, Germany	Los Angeles, Calif	General	3,122	7,820	5,661
Otterpool	15	6.35	15	7.35	15	22.25	16	00.15	British	Continental Grain Co	390.0	55.0	15.0	Norfolk, Va.	San Francisco, Cal.	Ballast.		5,926	4,262
Vestal [6]	15	6.27	15	11.18	15	23.30			American	U. S. Navy	450.0	60.0	20.7	Guantanamo, Cuba	Balboa, C. Z	Ballast			
Atlantic Sun [1]	15	10.55	15	12.15	16	00.38	16	1.40	American	Sun Oil Co	429.0	59.2	19.0	Providence, R. I.	Los Angeles, Calif.	Ballast		7,568	5,283

[1] Tanker. [2] Motor ship. [3] Tug. [4] Submarine. [5] Auxiliary. [6] Repair ship. [7] Steel rails and pipes. [8] Cotton, wax, general, etc. [9] Steel, tinplate, and general.

Canadian Conqueror	15	7.55	15	13.25	16	1.50	16	2.53	British	Can. Nat. Steamships	400.0	52.0	22.8	Halifax, N. S.	Auckland, N. Z.	General	3,500	5,954	4,139
Sedgepool	15	11.37	15	15.35	16	2.58	16	4.00	British	Sir. R. Ropner & Co.	415.0	55.5	23.0	Antwerp, Belgium	Los Angeles, Calif.	Cement clinkers	7,123	6,641	4,812
Saint Louis	15	9.05	16	6.20	16	17.33	16	18.39	French	French Line	397.0	50.0	20.0	Havre, France	Valparaiso, Chile	General	2,705	5,857	4,166
S-17 [1]			16	6.05	16	16.30			American	U. S. Navy	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.				
Minnesota	15	13.33	16	6.10	16	16.32	16	17.30	French	French Line	412.3	50.0	23.11	Havre, France	Vancouver, B. C.	Iron, general	3,037	6,483	4,441
Altuna Mendi	15	16.50	16	7.25	16	18.51	16	20.12	Spanish	Sota and Aznar	400.0	52.0	16.0	Gibraltar	Caleta Colosa, Chile	Ballast		6,282	4,547
Bobolink [10]	14	22.15	16	8.45	16	18.54			American	U. S. Navy	180.0	35.6	14.0	United States	Balboa, C. Z.				
Wando [3]	14	22.15	16	8.45	16	18.54			American	U. S. Navy	123.6	26.7	14.0	United States	Balboa, C. Z.				
Columbia [2]	15	20.55	16	9.15	16	19.50	16	22.47	Danish	Orient S. S. Co.	385.0	54.0	14.0	Nakskov, Denmark	Gray's Har., Wash.	Ballast		6,427	4,751
Pennsylvanian	16	2.00	16	10.30	16	20.43	16	21.40	American	Amer.-Hawaiian Line	407.7	53.7	20.0	Boston, Mass.	Seattle, Wash.	General	3,091	7,107	5,041
H. C. Folger [2]	16	3.25	16	11.10	16	21.44	16	22.47	American	Atlantic Refining Co.	435.0	56.0	22.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,461	5,159
Lillian Luckenbach	16	3.35	16	11.55	16	22.48	17	00.48	American	Luckenbach Line	448.0	60.2		Boston, Mass.	Seattle, Wash.	General	3,600	9,294	6,865
Rokes Vergottis	15	13.45	16	12.55	17	00.02	17	1.15	Greek	Vergottis S. S. Co.	400.0	52.4	16.0	Rotterdam, Holland	Arica, Chile	Ballast		5,819	4,230
Canadian Victor	16	6.35	16	14.00	17	1.16	17	2.27	British	Can. Nat. Steamships	400.0	52.0	20.0	Halifax, N. S.	Brisbane, Australia	General	2,710	5,956	4,172
Aconcagua	16	6.47	16	14.50	17	2.32	17	3.22	Chilean	South American Line	422.8	56.2	25.10	New York, N. Y.	Valparaiso, Chile	General	2,847	7,764	4,705
Cedarhurst	16	7.05	16	16.00	17	3.30	17	7.49	American	T. P. Gallagher & Co.	390.0	54.0	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		6,209	4,303
King Alfred	16	16.15	16	17.20	17	5.00	17	6.38	British	King Line, Ltd.	400.0	52.0	16.0	Algiers, Algeria	Portland, Oreg.	Ballast		5,730	4,061
San Pedro	14	17.05	16	17.30	17	5.16	17	6.08	American	Hammond Lumber Co.	289.0	44.0	15.8	Savannah, Ga.	Gray's Har., Wash.	Rails	1,101	2,637	1,701
Falcon [10]	15	23.59	16	13.30	17	00.02			American	U. S. Navy	189.0	35.6		United States	Balboa, C. Z.				
Texas [11]	17	5.45	17	6.00	17	14.37			American	U. S. Navy	565.0	106.0		Hampton R'ds, Va.	Balboa, C. Z.				
Hororata	16	17.50	17	5.58	17	15.42	17	17.15	British	N. Z. Shipping Co.	511.1	64.2	30.10	London, England	Bluff, N. Z.	General	7,750	12,623	8,763
Wyoming [11]	16	15.35	17	7.20	17	18.25			American	U. S. Navy	554.0	104.0		Hampton R'ds, Va.	Balboa, C. Z.				
Richmond [12]	16	14.10	17	7.45	17	16.52			American	U. S. Navy	550.0	55.0		Yorktown, Va.	Balboa, C. Z.				
Arkansas [11]	16	15.45	17	8.15	17	20.48			American	U. S. Navy	554.0	104.0		Hampton R'ds, Va.	Balboa, C. Z.				
Cincinnati [12]	16	14.10	17	8.35	17	18.56			American	U. S. Navy	550.0	55.0		Yorktown, Va.	Balboa, C. Z.				
Saxostad [2]	17	6.10	17	9.50	17	23.04	18	00.18	Norwegian	Fern Line	381.6	53.3	24.6	Houston, Texas	Osaka, Japan	General	6,400	6,100	4,210
Robin [10]	16	16.15	17	9.50	17	23.30			American	U. S. Navy	189.0	35.6		Yorktown, Va.	Balboa, C. Z.	([15])			
Marblehead [12]	16	14.10	17	10.10	17	21.53			American	U. S. Navy	550.0	55.0		Yorktown, Va.	Balboa, C. Z.				
Concord [12]	16	14.25	17	11.35	18	00.25			American	U. S. Navy	550.0	55.0		Yorktown, Va.	Balboa, C. Z.				
Daghild	17	7.05	17	12.40	18	1.53	18	3.10	British	Dominion Coal Co.	455.0	58.0	17.0	Norfolk, Va.	Mejillones, Chile	Ballast		8,002	5,606
Trojanstar	17	8.35	17	13.45	18	2.57	18	3.55	British	Blue Star Line	469.0	59.0	24.0	Newcastle-on-Tyne	Vancouver, B. C.	Ballast		10,405	7,401
London Importer	16	12.50	17	14.35	18	4.05	18	5.15	British	Furness, Withy & Co.	459.0	57.0	17.6	Glasgow-England	Vancouver, B. C.	General, bananas	1,362	8,529	5,993
Laurel	17	15.50	17	16.05	18	5.10	18	6.42	American	States S. S. Co.	410.0	54.0	19.0	Wilmington, Del.	Portland, Oreg.	General, steel	3,095	6,756	4,874
Sciota [3]			17	6.20	17	15.42			American	U. S. Navy	149.3	30.0		Cristobal, C. Z.	Balboa, C. Z.				
Florida [11]	16	15.45	18	6.15	18	19.38			American	U. S. Navy	510.0	85.2		Hampton R'ds, Va.	Balboa, C. Z.				
Whitney [13]	16	15.20	18	6.15	18	20.40			American	U. S. Navy	460.0	61.0		Yorktown, Va.	Balboa, C. Z.				
Doblin [13]	16	15.10	18	7.25	18	21.50			American	U. S. Navy	460.0	61.0		Hampton R'ds, Va.	Balboa, C. Z.				
No. 199 [14]	16	15.00	18	7.25	18	23.40			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z.				
No. 249 [14]	16	15.00	18	7.25	18	23.40			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z.				
No. 290 [14]	16	15.00	18	7.40	18	23.40			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z.				
No. 293 [14]	16	15.00	18	7.40	18	23.40			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z.				
Alvarado	16	17.20	18	8.20	19	00.10	19	1.15	British	Pacific Steam Nav. Co.	303.0	43.0	17.10	Cristobal, C. Z.	Puntarenas, C. R.	General	831	2,844	1,748
Birk	17	21.10	18	8.50	19	1.24	19	2.00	Norwegian	Anglo-Chilean Nit. Co.	359.0	52.0	12.6	Mobile, Ala.	Tocopilla, Chile	Ballast		4,751	3,160
No. 287 [14]	16	15.00	18	8.35	19	1.57			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z.				
No. 292 [14]	16	15.00	18	8.35	19	1.57			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z.				

[1] Tanker. [10] Mine sweeper. [11] Battleship. [12] Cruiser. [13] Destroyer tender. [14] Destroyer. [15] Towing raft.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
No. 250 [16]	16	15.00	18	9.05	19	1.57			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z				
No. 233 [16]	16	15.00	18	9.05	19	1.57			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z				
Wentworth	17	1.20	18	10.00	19	3.05	19	4.25	British	Strauss & Co.	400.0	52.3	17.0	Leith, England	San Francisco, Cal.	Ballast		5,721	4,058
Firmore	17	19.10	18	11.10	19	4.14	19	5.05	American	Ore S. S. Corp	449.1	57.2	20.1	Baltimore, Md	Cruz Grande, Chile	Ballast		7,847	5,185
Willpolo	18	6.50	18	12.20	19	5.35	19	6.53	American	Williams S. S. Line	386.8	52.2	20.0	Baltimore, Md	Seattle, Wash	General, steel	3,700	5,680	4,080
Jakob Maersk	18	7.30	18	12.40	19	5.40	19	7.14	Danish	Maersk S. S. Co	284.9	42.4	20.7	Tampico, Mexico	Puntarenas, C. R.	General	2,993	2,460	1,716
Lebore	18	6.20	18	13.30	19	6.43	19	7.48	American	Ore S. S. Corp	549.0	72.0	24.10	New York, N. Y.	Cruz Grande, Chile	Ballast		14,325	4,635
City of Durkirk	18	7.00	18	15.10	19	17.55	19	19.00	British	Ellerman & Bucknall.	420.0	54.3	26.0	Philadelphia, Pa.	Yokohama, Japan	General	6,685	7,108	5,420
Geo. W. Barnes [1]	18	8.50	18	16.05	19	19.06	19	20.04	American	Huasteca Petroleum Co.	416.8	53.1	19.2	Norfolk, Va.	Los Angeles, Calif.	Ballast		6,763	4,759
Sydland	18	10.28	18	17.10	19	20.41	19	22.00	Swedish	Axel Brostrom & Sons	431.0	54.0	18.0	Cardiff, England	Vancouver, B. C.	Ballast		6,771	4,891
Jersey City	18	12.30	18	18.15	19	22.29	19	23.58	British	Sir W. R. Smith & Sons	411.8	55.0	16.3	Birkenhead, Eng.	Vancouver, B. C.	Ballast		6,952	5,005
Edward P. Nonces [17]			18		18				American	U. S. Army	101.0	23.5		Cristobal, C. Z	Balboa, C. Z				
Gen. Wm. M. Graham [18]			18		18	18.10			American	U. S. Army	156.0	32.0		Cristobal, C. Z	Balboa, C. Z				
Utah [19]	18	20.00	19	5.45	19	23.52			American	U. S. Navy	510.0	85.2		Hampton R'ds, Va.	Balboa, C. Z				
No. 231 [16]	16	15.00	19	6.21	19	23.50			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z				
No. 235 [16]	16	15.00	19	6.21	19	24.50			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z				
No. 236 [16]	16	15.00	19	6.21	19	22.05			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z				
No. 240 [16]	16	15.00	19	6.21	19	22.05			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z				
Manizales	15	18.28	19	7.25	20	00.55	20	1.55	German	North German Lloyd	216.0	33.0	13.0	Cristobal, C. Z	Buenaventura, Col.	General	169	1,132	741
Herakles	18	18.05	19	7.55	20	4.55	20	6.24	Norwegian	Bruusgaard Line.	389.8	54.0	21.6	Norfolk, Va.	Los Angeles, Calif.	General	3,000	5,680	4,220
No. 237 [16]	16	15.00	19	7.25	20	2.20			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z				
No. 238 [16]	16	15.00	19	7.25	20	2.20			American	U. S. Navy	310.0	30.0		Yorktown, Va	Balboa, C. Z.				
No. 239 [16]	16	15.00	19	7.25	20	2.20			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z				
No. 241 [16]	16	15.00	19	7.25	20	2.20			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z				
Marie Maersk [1] [20]	18	16.45	19	9.10	20	00.58	20	3.55	Danish	Anglo-Saxon Pet. Co	466.0	62.0	18.0	Liverpool, England	Los Angeles, Calif	Ballast		8,645	6,054
Monogas [1]	18	22.05	19	9.50	20	4.55			Venezuelan	Venezuela Gulf Oil Co.	305.4	50.2	13.0	Venezuela	Balboa, C. Z	Ballast			
No. 247 [16]	16	15.00	19	9.45	20	3.28			American	U. S. Navy	310.0	30.0		Yorktown, Va.	Balboa, C. Z				
Mercy [21]	19	6.40	19	10.35	20	3.37			American	U. S. Navy	413.0	53.2		Yorktown, Va.	Balboa, C. Z				
Buenaventura	17	18.55	19	12.53	20	6.28	20	7.24	American	Panama R. R. S. S. Line.	251.0	43.0	20.6	New York, N. Y.	Guayaquil, Ecuador	General	1,358	2,873	1,776
Carl Legien	18	12.12	19	13.00	20	6.31	21	1.25	German	Hamburg-American Line	410.0	54.0	22.4	Hamburg, Germany	Valparaiso, Chile	General	3,912		
Oglala [22]	19	11.45	19	16.30	20	7.24			American	U. S. Navy	375.0	52.0		Yorktown, Va.	Balboa, C. Z				

[1] Tanker. [16] Destroyer. [17] Tug. [18] Mine planter. [19] Battleship. [20] Motor ship. [21] Hospital ship. [22] Mine layer.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Willfaro	12	19.10	13	00.55	13	9.12	13	21.12	American	Williams S. S. Line	386.8	52.2	23.0	Seattle, Wash	New York, N. Y.	Lumber, general.	5,980	5,684	4,070
West Cape.	12	22.35	13	2.00	13	10.25	13	10.25	American	McCormick S. S. Co	409.5	54.2	24.1	San Francisco, Cal.	New York, N. Y.	Lumber, general.	8,500	6,566	4,960
Romanby	12	23.00	13	2.49	13	12.05	13	12.50	British	Sir. R. Ropner & Sons.	390.0	55.0	23.4	Vancouver, B. C.	London, England	Wheat	7,773	5,910	4,242

Melpomene [1]	13	00.03	13	4.30	13	13.15	13	18.10	French	Cie. Aux. de Navigation	425.8	56.9	27.0	Los Angeles, Calif.	Sete, France	([27])	9,222	7,085	5,050
Watertown [1]	12	20.23	13	5.12	13	14.10	13	14.10	American	Cities Service Trans. Co.	416.9	56.2	27.4	Los Angeles, Calif.	Baltimore, Md.	Gasoline	11,105	6,716	4,778
Unbe Mendi	13	8.00	13	9.15	13	16.30	13	17.10	Spanish	Sota & Aznar	365.0	50.3	21.0	Guayamas, Mexico	Bilboa, Spain	Peas	5,000	4,654	3,357
Gen. Wm. M. Graham [23]			13	11.25	13	22.40			American	U. S. Army	160.2	32.0		Balboa, C. Z.	Cristobal, C. Z.				
Georgian	13	13.05	13	14.31	13	23.10	14	16.10	American	Amer.-Hawaiian Line	386.8	52.2	23.6	Vancouver, B. C.	Hamburg, Germany	Wheat, lumber	6,178	5,719	4,023
Terrier	13	18.45	14	3.25	14	12.05	14	13.20	Norwegian	Wilhelmsen Line	400.0	52.2	24.6	Caleta Colosa, Chile	Savannah, Ga.	Nitrates	8,000	5,639	4,161
Skegness	13	19.45	14	4.56	14	12.35	14	13.00	British	Sir. W. R. Smith & Sons	386.8	52.2	23.0	Vancouver, B. C.	Manchester, Eng.	General	7,627	6,621	4,916
Dio	14	6.55	14	7.49	14	15.25	14	15.25	American	Redwood Line	401.8	54.3	23.0	Los Angeles, Calif.	New Orleans, La.	Lumber, general	5,580	5,708	4,131
Sciota [24]			14	8.13	14	17.00			American	U. S. Navy	155.0	30.0		Balboa, C. Z.	Cristobal, C. Z.	([28])			
S-14 [25]			14	8.13	14	17.00			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.	([29])			
Santa Teresa	14	7.20	14	9.13	14	16.55			American	Grace Line	360.2	51.5	22.0	Talcahuano, Chile	New York, N. Y.	([30])	3,254	5,726	4,086
Glentworth	14	11.00	14	11.39	14	21.48	15	2.00	British	R. S. Dalgliesh & Co.	450.0	55.0	27.0	Vancouver, B. C.	Rotterdam, Holland	Grain	7,920	7,998	5,869
Hawaiian	14	12.15	14	12.44	14	20.00	14	22.45	American	Amer.-Hawaiian Line	404.0	54.0	27.0	Portland, Oreg.	Boston, Mass.	General	6,036	6,766	4,767
Fernlane [26]	14	12.30	14	13.24	14	21.40	14	21.40	Norwegian	Fearnley & Eger	376.5	53.8	25.0	Vladivostok, Sib'a	Aarhus, Denmark	Soya beans	7,000	6,264	4,681
Chilcop	14	14.55	15	2.35	15	11.50	15	1.55	American	Chile S. S. Corp.	414.5	54.1	24.6	Antofagasta, Chile	New York, N. Y.	Copper, nitrates	8,067	6,609	4,973
Seapool	14	15.50	15	4.24	15	13.30	15	15.05	British	Sir. R. Ropner & Sons	373.0	56.0	22.7	N. Westminster	New York, N. Y.	Lumber	5,900	5,521	4,078
Myrtle	14	16.20	15	5.28	15	14.20	15	14.20	American	Forrest Transport Co.	410.5	54.2	25.2	Portland, Oreg.	New York, N. Y.	Lumber	6,761	6,755	4,895
Tsuyama Maru	14	14.15	15	6.25	15	15.25	15	15.25	Japanese	Nippon Yusen Kaisha	445.0	58.0	23.1	Manila, Philippines	Boston, Mass.	General	9,932	7,956	5,681
San Eduardo [1]	15	6.25	15	7.13	15	16.55	15	22.30	British	Anglo-Amer. Pet. Co.	420.3	54.6	25.6	Los Angeles, Calif.	Lizard's Head, Eng.	Gasoline	8,241	6,390	4,381
Blythmoor	15	7 10	15	8 27	15	18.00	15	19.00	British	W. Runciman & Co.	420.0	54.0	26.6	Vancouver, B. C.	Rotterdam, Holland	Wheat	9,495	6,973	5,008
Buenos Aires [26]	15	9.45	15	10.29	15	18.25	16	3.20	Swedish	Johnson Line	426.9	56.0	26.0	San Francisco, Cal.	London, England	General	7,591	7,591	5,661
Chincha	15	10.05	15	10 58	15	19.15	15	19.50	American	Planet Line	403.0	52.3	28.0	Los Angeles, Calif.	Portland, Maine	Lumber, general	7,141	6,872	4,973
Horace Luckenbach	15	11.15	15	12.34	15	20.05	15	20.50	American	Luckenbach Line	445.0	58.0	27.0	Portland, Oreg.	Boston, Mass.	General	6,564	8,699	6,363
Hilda Knudsen [1 26]	15	11.40	15	13.39	15	21.50	15	21.50	Norwegian	K. Knudsen	470.0	62.9	27.0	Los Angeles, Calif.	London, England	Gasoline	12,153	9,474	6,489
Manizales	15	10.20	15	14.39	15	22.55	19	7.25	German	Roland Line	216.5	32.9	15.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	661	1,132	741
Pacific Pioneer [26]	15	14.40	15	15.17	16	00.05	16	00.05	British	Furness Withy & Co.	435.9	60.2	27.3	Victoria, B. C.	Glasgow, Scotland	General	8,222	9,630	6,943
Great City	16	1.00	16	3.19	16	11.20	16	12.10	British	Sir. W. R. Smith & Sons	420.0	56.9	25.0	Vancouver, B. C.	Falmouth, England	Wheat	9,020	7,029	5,478
Mineola	15	21.45	16	2.01	16	10.10	16	10.10	American	N. O. & S. A. S. S. Co.	298.6	40.0	21.0	Iquique, Chile	New Orleans, La.	Nitrates	3,529	2,835	1,805
San Jose	16	4.10	16	4.56	16	12.35	18	1.30	American	United Fruit Co.	330.0	44.6	18.6	San Francisco, Cal.	Port Limon, C. R.	General	1,288	3,570	2,353
Jugoslavija	16	5 55	16	7.12	16	16.05	16	17.30	Yugoslav	Baburizza & Co.	410.1	49.3	26.0	Taltal, Chile	Hamburg, Germany	Nitrates	7,789	5,686	4,188
Ucayali	16	2.20	16	9.38	16	17.18	22	6.15	Peruvian	Peruvian Line	374.7	46.3	21.0	Callao, Peru	Cristobal, C. Z.	General	2,170	4,466	2,405
Alvarado	16	9.00	16	9.49	16	17.20	18	8.20	British	Pacific Steam Nav. Co	303.0	43.0	14.7	Callao, Peru	Cristobal, C. Z.	General	574	2,844	1,748
Feltore	16	10.10	16	11.05	16	19.30	16	19.30	American	Ore S. S. Corp.	449.1	57.2	31.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	11,122	7,808	5,139
King Arthur [26]	16	1.45	16	11.38	16	20.30	16	22.30	British	Dodd, Thomson & Co.	400.7	54.8	24.0	Vancouver, B. C.	Valencia, Spain	Wheat	7,416	6,284	4,335
Vera Radcliffe	16	12.10	16	12.53	17	23.30	17	1.00	British	Evan T. Radcliffe	415.5	55.5	23.6	Vancouver, B. C.	Avonmouth, Eng.	Wheat	8,250	6,791	4,906
Oxelosund [26]	16	20.00	17	3.23	17	15.35	17	16.30	Swedish	Traf. A. B. Grangesberg	393.7	53.4	25.2	Vancouver, B. C.	Queenstown, Ire	Wheat	6,300	6,061	4,029
Martha [26]	17	14.15	18	5.24	18	17.30			Norwegian	Chr. Hannevig, Sr.	183.2	30.0	14.0	Buenaventura, Col.	Cristobal, C. Z.	([31])	961	780	504
Rossington Court	17	17.00	18	4.20	18	14.15	18	14.15	British	Haldin & Co.	410.0	56.5	26.7	Prince Rupert, B.C.	Falmouth, England	Wheat	9,930	6,963	4,959
Condor	17	17.20	18	5.30	18	17.25	18	20.55	Chile	R. W. James Co.	365.4	45.3	24.0	Valparaiso, Chile	New York, N. Y.	Nitrates	4,609		
Marore	18	3.15	18	6.37	18	18.40	18	18.40	American	Ore S. S. Corp.	550.3	72.2	34.6	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,555	15,551	4,297
Papoose [1]	17	18.30	18	7.29	18	19.45	18	19.45	American	Petroleum Nav. Co.	412.0	53.2	26.2	Los Angeles, Calif.	New York, N. Y.	Refined gasoline	8,783	8,285	4,370
Sandar [1 26]	17	20.50	18	8.14	18	20.50	18	20.50	Norwegian	Haldor Virik	450.0	59.0	26.6	Los Angeles, Calif.	Land's End, Eng.	Gasoline	10,389	7,944	5,408
Persephone [1 26]	18	5.35	18	9.04	18	21.55	18	21.55	Danzig	Baltic-Amer. Pet. Co.	468.6	63.0	27.6	Talara, Peru	Hamburg, Germany	Naphtha	11,400	9,336	6,334
Nevadan	17	20.02	18	10.08	18	22.30	18	22.30	American	Amer.-Hawaiian Line	460.0	57.9	25.6	Seattle, Wash.	Boston, Mass.	General	7,620	6,829	4,627

[1] Tanker. [23] Mine planter. [24] Tender. [25] Submarine. [26] Motor ship. [27] Gasoline and kerosene. [28] Towing submarine *S-4*. [29] Towed by tug *Sciota*. [30] Copper, nitrates, and cotton. [31] Coffee, hides, and beans.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Tejon [1]	17	21.00	18	11.34	18	23.10	18	23.10	American	General Pet. Corp.	425 8	57.0	26 0	Los Angeles, Calif	New York, N. Y.	Gas oil	10,057	7,218	4,953
Nicola Mihanovic	17	21.15	18	12.26	19	00.50	19	2.40	Yugoslav	Baburizza & Co	400 5	52.2	26.2	Antofagasta, Chile.	Azores [33]	Nitrates	7,558	5,826	3,969
Vulcan City	17	23.50	18	13.14	19	2.10	19	17.35	British	Sir. W. R. Smith & Sons	430.4	54 5	25 0	Portland, Oreg.	Europe	Wheat	7,568	6,870	5,043
Handicap [32]	18	6.30	19	5.49	19	13.50	19	15.35	Norwegian	Bruusgaard Line	415.3	51 7	26.6	Vancouver, B. C.	Le Havre, France.	General	8,028	7,296	5,445
Finn [32]	18	11.00	19	6.07	19	14.40	19	19.50	Swedish	Colombia Maritime Co.	271.2	41.3	14 0	Buenaventura, Col.	New York, N. Y.	([34])	371	2,472	1,513
Epidauro	18	5.30	19	6.55	19	16.40	19	16.40	Yugoslav	Baburizza & Co	360.0	48.0	26.0	Antofagasta, Chile.	Azores [33]	Nitrates	6,945	4,617	3,412
Point Arena	18	23.06	19	7.02	19	15.10	19	15.10	American	Swayne & Hoyt	324.0	46.2	20.0	Portland, Oreg.	New Orleans, La.	General	3,298	3,984	2,612
Eastern City	18	10.40	19	7.57	19	17.15	19	17.55	British	Sir. W. R. Smith & Sons.	400.0	53.0	25.0	Vancouver, B. C.	Hull, England	Wheat	7,650	6,204	4,328
Bienvenido	19	4.55	19	8.04	19	16.45			British	P. N. & J. N. Carranza.	210.3	32.1	12.0	Buenaventura, Col.	Cristobal, C. Z.	Ballast		1,345	806
Mariva	18	11.35	19	9.20	19	17.50	19	17.50	British	Royal Mail S. P. Co.	430.4	61.3	27.0	Vancouver, B. C.	Hamburg, Germany	([35])	5,862	9,319	5,854
Legazpi	18	12.30	19	10.24	19	18.25	20	22.45	Spanish	Spanish Line	375 6	47 0	21.1	Valparaiso, Chile.	Barcelona, Spain.	General	873	4,506	2,827
Hermes	19	7.20	19	11.06	19	19.45	19	21.35	Norwegian	Bruusgaard Line	346 0	49 5	23.6	Vancouver, B. C.	Le Havre, France.	Lumber, general.	6,100		
Clan Alpine	18	15.10	19	11.12	19	20.05	19	20.05	British	Caysar Irvine & Co	410 0	52 5	24 6	Bay N'Go, N. Cal.	English Chan. [33]	([36])	7,028	7,209	5,182
Tashmoo	19	8.40	19	11.37	19	20.30	19	20.30	American	Charles Nelson & Co.	324 0	46 2	25 0	Los Angeles, Cal.	Savannah, Ga.	Lumber, general.	3,975	3,984	2,628
Markakis	18	19.10	19	12.34	19	23.05	19	23.05	Greek	Emanuel Markov.	375.7	48 7	26.0	Tocopilla, Chile	Azores [33]	Nitrates	6,800	5,371	3,936
Pacific Hemlock	18	22.00	19	13.40	19	23.30	19	23.30	American	Dimon S. S. Corp.	409 7	54 2	24.4	Olympia, Wash.	New York, N. Y.	Lumber	7,580	6,630	4,878

[1] Tanker. [32] Motor ship. [33] For orders. [34] Coffee, hides, and tubs. [35] Forzen and canned goods. [36] Copra, cotton, and rubber.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
January 13	Antillian	Leyland Line	Puerto Colombia.
January 13	Pastores	United Fruit Co.	Port Limon, Costa Rica.
January 14	Manaqui	United Fruit Co.	New York, N. Y.
January 14	Nike	Anglo-Saxon Petroleum Co.	Curacao, D. W. I.
January 16	Gatun	Standard Fruit & S. S. Co.	New Orleans via wayports.
January 16	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
January 16	Carare	Elders & Fyffes, Ltd.	Avonmouth via wayports.
January 16	Scythia	Cunard Line	New York via wayports.
January 16	Coppename	United Fruit Co.	New Orleans, La.
January 16	Anachucuna [37]	United Fruit Co.	Colon, R. P.
January 17	Sixaola	United Fruit Co.	Santa Marta, Colombia.
January 17	Ulua	United Fruit Co.	New York via Habana.

* DEPARTURES.

Date.	Vessel.	Line.	For—
January 13	Pastores	United Fruit Co.	New York via Habana.
January 13	Galicia	Hamburg-American Line	Europe via wayports.
January 13	San Pablo	United Fruit Co.	New York via Kingston.
January 14	Parismina	United Fruit Co.	New Orleans via wayports
January 14	Barrenfork [38]	Marine Transp. & Towing Co.	Charleston, S. C.
January 14	Goliah [38]	Wood Towing Corporation	Mariel, Cuba.
January 16	Manaqui	United Fruit Co.	Puerto Colombia.
January 16	Nike	Anglo-Saxon Petroleum Co.	Curacao, D. W. I.
January 16	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
January 17	Anachucuna [37]	United Fruit Co.	Colon, R. P.
January 17	Carare	Elders & Fyffes, Ltd.	Avonmouth via Kingston.
January 17	Sixaola	United Fruit Co.	New York via Kingston.

[37] Motor boat. [38] Tug * Other than ships passing through the Canal

(Continued on page 360, column 2.)

United States Intercoastal Traffic by Commodities for December, 1928.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for December, 1928, and the totals for December, 1927 and 1926. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the destination of "General cargo." These statistics are accordingly not precise but they are indicative of the kind and quantity of the cargo in transit through the Canal. The figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Aeroplanes	84	.....	84
Agricultural implements	1,641	.....	1,641
Alfalfa	.....	135	135
Alfalfa meal	.....	2,136	2,136
Ammonia	75	.....	75
Asbestos	103	.....	103
Asphalt	459	159	618
Automobiles	2,179	125	2,304
Automobile accessories	750	29	779
Bamboo	.....	47	47
Beans	11	6,414	6,425
Borax	.....	1,380	1,380
Bran	.....	463	463
Bricks	342	.....	342
Burlap	78	434	512
Camphor	.....	11	11
Canned goods:			
Fish	177	11,458	11,635
Fruit	280	34,517	34,797
Meat	254	12	266
Milk	.....	811	811
Soup	1,880	.....	1,880
Vegetables	1,112	5,949	7,061
Miscellaneous	3,588	5,782	9,370
Carbon black	10	70	80
Celite filtercel	622	645	1,267
Charcoal	237	63	300
Chemicals	1,973	335	2,308
China and fire clay	495	.....	495
Coal	700	.....	700
Cocoa	25	200	225
Coconuts	.....	366	366
Coffee	41	254	295
Coke	50	.....	50
Cold storage:			
Cheese	34	.....	34
Lard	266	.....	266
Other	126	.....	126
Confectionery	390	.....	390
Cork	32	.....	32
Corn	99	.....	99
Cotton	840	2,334	3,174
Drugs	841	7	848
Earthenware	62	29	91
Eggs, dried	.....	75	75
Explosives	31	.....	31
Fertilizer	100	.....	100
Flour	431	6,070	6,501
Fruit:			
Dried	.....	15,559	15,559
Fresh	.....	125	125
Fuller's earth	1,025	.....	1,025
Furniture	382	.....	382
General	27,145	5,269	32,414
Glass and glassware	1,864	186	2,050
Glue	10	.....	10
Hair	10	119	129
Hardwoods	274	.....	274
Hay	.....	647	647
Hemp	.....	262	262
Honey	.....	69	69
Hops	.....	15	15
Jute	40	.....	40
Kapok	.....	36	36
Lineoleum	998	.....	998

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Liquors	107	.....	107
Lumber	4,307	176,174	180,481
Malt	177	.....	177
Manufactured goods:			
Iron and steel	116,357	373	116,730
Machinery	5,863	572	6,435
Railroad material	4,741	.....	4,741
Tinplate	8,514	.....	8,514
Textiles	4,672	224	4,896
Miscellaneous	5,338	4,460	9,798
Marble	200	.....	200
Matches	239	13	252
Metals:			
Antimony	.....	100	100
Copper	106	6,232	6,338
Iron	2,209	.....	2,209
Lead	94	220	314
Scrap	350	149	499
Tin	58	253	311
Zinc	.....	850	850
Other	63	.....	63
Milk, powdered	49	333	382
Molasses	151	.....	151
Musical instruments	25	.....	25
Nitrates	.....	29	29
Nuts	.....	85	85
Oats	26	.....	26
Oils:			
Coconut	.....	28	28
Cottonseed	15	.....	15
Gas oil, fuel oil	.....	8,340	8,340
Gasoline, benzine, naphtha	1,058	149,526	150,584
Kerosene	.....	22,639	22,639
Lubricating and greases	8,337	60	8,397
Vegetable	135	2	137
Wood	33	.....	33
Other	.....	47	47
Ores:			
Magnesite	.....	1,510	1,510
Manganese	71	100	171
Zinc	25	1,020	1,045
Other	159	60	219
Paint	207	152	359
Paper	5,893	4,697	10,590
Paper pulp	14	4,652	4,666
Peanuts	81	.....	81
Peas	.....	90	90
Phosphates	1,104	.....	1,104
Plaster	52	.....	52
Porcelain	303	591	894
Quicksilver	.....	2	2
Rags	32	338	370
Rice	1,760	75	1,835
Rope	293	95	388
Rosin	470	.....	470
Rubber:			
Manufactured	1,734	28	1,762
Raw	50	.....	50
Scrap	.....	221	221
Salt	244	35	279
Seeds:			
Grass	.....	55	55
Other	.....	228	228
Shells	145	135	280
Silk	.....	356	356
Skins and hides	.....	4,834	4,834
Slag	1,370	.....	1,370
Slate	100	.....	100
Soap	3,138	289	3,427
Soda	311	.....	311
Soda, ash	1,393	.....	1,393
Soda, bicarbonate	169	.....	169
Soda, caustic	866	.....	866
Starch	27	.....	27
Sugar	141	8,880	9,021
Sulphur	16,468	.....	16,468
Syrup	40	.....	40
Talc	53	30	83
Tallow	.....	470	470
Tar	158	.....	158
Tea	73	202	275
Tobacco	2,345	138	2,483
Toys	545	35	580
Turpentine	145	.....	145
Waste	51	248	299

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Wax	87	36	123
Wheat		4,317	4,317
Wine	40	93	133
Wool	18	1,211	1,229
Totals, December, 1928	255,565	508,529	764,094
Totals, December, 1927	192,733	563,716	756,449
Totals, December, 1926	233,678	692,041	925,719

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessel furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 13 years of operation.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.—Continued from page 356.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
January 17	Sosua	United Fruit Co	New Orleans, La.	January 17	Sosua	United Fruit Co	Perne, R. P.
January 17	Zacapa	United Fruit Co.	New York via Kingston.	January 17	Scythia	Cunard Line	New York via wayports.
January 18	Iriona	United Fruit Co.	Puerto Colombia.	January 18	Inapaquina [37]	United Fruit Co.	Colon, R. P.
January 18	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.	January 18	Coppename	United Fruit Co	Port Limon via Bocas.
January 18	Inapaquina [37]	United Fruit Co.	Colon, R. P.	January 18	Zacapa	United Fruit Co.	New York via wayports.
January 19	Oranian	Leyland Line	Liverpool via wayports.	January 18	Iriona	United Fruit Co.	New Orleans, La.
January 19	Sosua	United Fruit Co	Perne, R. P.	January 18	Ulua	United Fruit Co	New York via wayports.
January 19	Heredia	United Fruit Co.	New Orleans via Habana.	January 18	Gatun	Standard Fruit & S. S. Corp.	New York via wayports
January 19	Mandeville	United Fruit Co	Kingston, Jamaica.	January 19	Sosua	United Fruit Co	Mobile, Ala.
			PORT OF BALBOA.				
January 16	Frost [39]	Svea S. S. Co.	Talara, Peru.	January 17	Frost [39]	Svea S. S. Co	Champerico, Guatemala.
January 17	A. B. de Obarrio [40]	Pacific Fruit Co.	Bayano River, R. P	January 17	A. B. de Obarrio	Pacific Fruit Co	Panama Bay, R. P.
January 17	Big Bill [39]	H. Elliot & Co.	Darien, R. P.	January 17	Dos Hermanos [40]	A. Valdez	Panama Bay, R. P.
January 17	Dos Hermanos [40]	A. Valdez	Bayano River, R. P.				
January 17	Kelvinia	John Black & Co	High seas.				
January 16	Cricamola [39]	Chiriqui Land Co	Puerto Armuelles, R. P.				

[39] Motor ship. [40] Motor schooner. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., January 30, 1929. No. 26.

Panama Canal Traffic During Calendar Year 1928, Segregated by Nationality of Vessels.

Vessels of 23 nationalities made up the total commercial traffic through the Panama Canal during the calendar year 1928. Forty-one and eight-tenths of the total commercial transits were vessels of the United States; 28.7 per cent were British vessels; and the remaining 29.5 per cent were distributed among the other 21 nationalities.

The following tabulation shows the total commercial traffic through the Canal during the calendar year 1928, segregated according to the nationality of vessels, together with corresponding totals for the calendar years 1927, 1926, and 1925. A similar table for the calendar year 1927 was published in THE PANAMA CANAL RECORD of January 25, 1928:

Nationality.	No. of ships.	Tonnage.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered. Gross.	Registered. Net.		
Argentine...	[1]1	.....	.....	.....	.....	$1,274.50	.....
Belgian.....	15	74,950	61,122	96,397	56,689	69,201.43	83,006
British.....	[2]1,816	8,961,796	6,761,405	10,982,161	6,773,172	8,014,548.86	8,184,083
Chilean.....	[3]30	126,355	94,399	196,081	106,796	118,449.20	87,911
Colombian..	104	42,044	37,482	61,937	38,319	44,500.57	37,898
Costa Rican	2	108	108	201	111	81.00	.....
Cuban.....	1	194	194	176	136	242.50	20
Danish.....	79	335,226	256,594	399,579	254,318	308,408.57	402,210
Danzig.....	29	186,265	151,347	256,222	144,294	161,406.81	162,048
Dutch.....	143	647,417	455,057	756,078	454,611	558,596.04	650,235
Finnish.....	6	13,680	13,643	14,537	11,340	15,585.00	19,594
French.....	[4]119	553,950	436,467	698,805	428,595	549,546.28	552,583
German.....	377	1,262,714	893,959	1,475,300	884,960	1,102,157.76	1,363,110
Greek.....	42	163,574	121,634	187,806	117,607	136,094.14	179,477
Italian.....	87	478,979	373,754	617,066	376,434	447,230.43	376,616
Japanese....	180	890,460	782,083	1,134,688	763,954	916,602.27	1,046,930
Norwegian..	307	1,178,383	889,747	1,442,958	877,405	1,047,772.82	1,341,844
Panaman....	84	84,572	55,955	108,439	69,112	64,579.41	62,715
Peruvian....	[5]51	127,757	74,716	185,665	98,074	93,271.55	83,241
Spanish....	41	151,403	125,757	206,481	126,601	149,741.20	117,014
Swedish....	124	550,015	398,117	1,010,596	481,214	456,052.00	797,717
United States....	2,648	12,911,765	10,076,204	16,278,254	10,046,686	11,933,682.74	13,558,338
Yugoslav...	48	201,830	157,910	250,274	158,078	186,937.33	294,991
Totals, 1928	6,334	28,943,437	22,217,654	36,359,701	22,268,506	26,375,962.41	29,401,581
Totals, 1927	6,085	28,610,984	22,360,998	36,381,124	22,353,512	26,231,022.94	29,102,538
Totals, 1926	5,420	25,836,241	20,254,503	33,044,274	20,329,791	23,901,540.04	27,586,051
Totals, 1925	4,774	22,958,158	18,141,695	29,368,840	18,228,704	21,380,759.70	23,701,277

[1] Naval vessel of 2,549 displacement tons. [2] Includes 13 naval vessels with total displacement of 60,911 tons. [3] Includes 2 naval vessels with total displacement of 4,174 tons. [4] Includes 3 naval vessels with total displacement of 35,400 tons. [5] Includes 2 naval vessels with total displacement of 1,000 tons.

RELATION SHOWN BY PERCENTAGE.

The proportions of the traffic by vessels of various nationalities are indicated in the following tabulation in which percentages of the total traffic are shown instead of the actual figures, for the calendar

years 1928 and 1927. In this table percentages are shown only for those nationalities having 75 or more transits during either 1928 or 1927:

Nationality.	No. of vessels.		Panama Canal net tonnage.		Tolls.		Tons of cargo.	
	1928.	1927.	1928.	1927.	1928.	1927.	1928.	1927.
United States	41.8	46.0	44.6	50.0	45.0	50.1	46.1	50.3
British	28.7	26.5	30.9	28.2	30.6	27.8	27.8	23.9
German	6.0	4.1	4.4	2.9	4.2	2.8	4.6	3.7
Norwegian	4.9	4.9	4.1	3.8	4.0	3.7	4.6	3.9
Japanese	2.8	2.9	3.1	2.9	3.5	3.4	3.6	3.6
Dutch	2.3	1.9	2.2	2.1	2.1	2.1	2.2	2.1
French	1.9	2.0	1.9	1.9	2.1	2.6	1.9	2.9
Swedish	1.9	1.7	1.9	1.4	1.7	1.3	2.7	2.0
Colombian	1.6	1.2	0.1	0.1	0.2	0.1	0.1	0.1
Italian	1.4	1.7	1.7	1.7	1.7	1.9	1.3	1.4
Panaman	1.3	2.1	0.3	0.3	0.2	0.3	0.2	0.3
Danish	1.2	0.9	1.2	0.8	1.2	0.9	1.4	1.1
All other	4.2	4.1	3.6	3.9	3.5	3.0	3.5	4.7
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

During the calendar year 1928 over 90 per cent of the total commercial transits of the Canal were vessels of 8 nationalities, and these vessels carried 93.4 per cent of the total cargo in transit through the Canal. With the exception of a decrease of 1 transit of French registry vessels and 151 transits of vessels of United States registry, all of these nationalities show increases in transits and all nationalities with the exception of United States, French, and Japanese an increase in cargo carried in 1928, as compared with the calendar year 1927. The figures are given in the following tabulation:

Nationality.	Total transits.		Tons of cargo.		Increase.	
	1928.	1927.	1928.	1927.	Transits.	Cargo.
United States	2,648	2,799	13,558,338	15,346,389	[1] 151	[1] 1,788,051
British	1,816	1,617	8,148,083	6,984,325	199	1,163,758
German	377	249	1,363,110	1,073,720	128	289,390
Norwegian	307	298	1,341,844	1,159,997	9	181,847
Japanese	180	176	1,046,930	1,055,047	4	[1] 8,117
Dutch	143	117	650,235	627,487	26	22,748
Swedish	124	102	797,717	630,282	22	167,435
French	119	120	552,583	571,524	[1] 1	[1] 18,941

[1] Indicates decrease.

The heavy decrease of vessels of United States registry was caused by the decline of mineral oil shipments from the west coast. Transits of tankers of United States registry were 340 fewer in 1928 than in 1927, and cargoes carried in tankers of United States registry decreased in the amount of 2,112,224 tons. This heavy decrease in tanker transits and cargo was absorbed in part, however, by an increase in other classes of vessels.

Colliers "Achilles" and "Ulysses," and Barges "Mamei" and "Darien" Offered for Sale or Charter.

The colliers *Achilles* and *Ulysses* and the barges *Mamei* and *Darien*, now laid up in Gatun Lake, are being offered for sale or charter by The Panama Canal.

The *Achilles* and *Ulysses* were built in 1915 by the Maryland Steel Company at Sparrows Point, Maryland, and were engaged prior to their retirement from service in 1925 in the transportation of coal

from Norfolk to the Isthmus for the Panama Railroad Company. The vessels are each 536 feet in length, 65 feet beam, and have a coal-carrying capacity of 12,000 tons. They are oil-burning steam vessels, capable of a speed of 14½ knots.

The barges *Mamei* and *Darien* were built in 1917, by the Alabama Dry Dock Company, of Mobile, and are 352 feet long, 52 feet beam, and have a coal-carrying capacity of 7,300 tons each.

Bids for this equipment are being received by the General Purchasing Officer, The Panama Canal, Washington, D. C., until February 28, 1929. Forms of proposal with full descriptions and particulars may be had upon application to that office.

Executive Order.

Amending Executive Order of February 26, 1921, Establishing Rates of Fare and Governing Transportation of Passengers for Hire in the Canal Zone.

By virtue of the authority vested in the President by the Act of Congress approved August 21, 1916, the Executive Order of February 26, 1921, establishing maximum rates of fare and governing transportation of passengers for hire in the Canal Zone, is hereby amended by inserting therein following Section XIV two sections numbered XIV*a* and XIV*b*, to read as follows:

SECTION XIV*a*. A willful neglect or refusal by any passenger in any vehicle for hire to pay the driver or operator of any such vehicle for hire the fare established by this order shall be deemed a violation of this order and be punishable accordingly.

SECTION XIV*b*. Any charge by the driver or operator of any vehicle for hire of a rate of fare in excess of the rates established by this order shall be deemed a violation of this order and be punishable accordingly.

This order shall take effect from and after this date.

By order of President.

(*Signed*) DWIGHT F. DAVIS.

WAR DEPARTMENT,
January 28, 1929.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending January 26, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Willwello	Williams Line	January 6		1,050	
Rapot	Roland Line	January 13	January 15	310	5
Tsuyama Maru	Nippon Yusen Kaisha	January 14	January 15	71	
Manizales	North German Lloyd	January 15	January 15	12	
Cedarhurst	T. P. Gallagher & Co	January 16	January 16		16
Frost	Svea S. S. Co	January 16	January 17	261	
Carl Legien	Hamburg-American Line	January 19	January 20	1,136	8
Turpin	Roland Line	January 21		1,323	
Venezuela	Panama Mail S. S. Co	January 22	January 22	54	
El Salvador	Grace Line	January 22	January 23	216	17
El Ciervo	Lobitos Oilfields, Ltd	January 22	January 24	2,431	
Nitro	U. S. Government	January 22	January 24	1	
Lippe	North German Lloyd	January 23	January 23		86
Santa Barbara	Grace Line	January 24	January 25		22
Vega	U. S. Government	January 25	January 25	3	
Virginia	Panama-Pacific Line	January 25	January 26		155
Robert E. Hopkins	Tidewater Oil Co	January 25	January 26	9,999	

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, January 26, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Mahan [2]	18	17.50	20	6.10	20	19.09			American	U. S. Navy	310 0	31.0		Yorktown, Va.	Balboa, C. Z.				
Maury [2]	19	6.45	20	6.10	20	19.09			American	U. S. Navy	310 0	31.0		Yorktown, Va.	Balboa, C. Z.				
Sutherland	19	11.20	20	6.25	20	20.35	20	22 00	American	Charles Nelson & Co.	380 0	53 0	20 0	Baltimore, Md	Seattle, Wash	Steel, general	4,705	5,654	4,123
No. 326 [3]	16	14.10	20	6.25	20	19.11			American	U. S. Navy	310.0	30 0		Yorktown, Va.	Balboa, C. Z.				
No. 327 [3]	16	14.10	20	6.25	20	19.11			American	U. S. Navy	310 0	30 0		Yorktown, Va.	Balboa, C. Z.				
No. 294 [3]	16	14.10	20	6.30	20	20.23			American	U. S. Navy	310 0	30 0		Yorktown, Va.	Balboa, C. Z.				
No. 329 [3]	16	14.10	20	6.30	20	20.23			American	U. S. Navy	310 0	30.0		Yorktown, Va.	Balboa, C. Z.				
Port Fremantle [4]	19	15.05	20	7.35	20	21.48	21	6.21	British	Com'lth & Dom. Line	475 0	63 0	26 6	London, England	Hawkes Bay, N. Z.	General	6,400	10,652	7,704
No. 284 [3]	16	14.10	20	7.35	20	23.10			American	U. S. Navy	310.0	30 0		Yorktown, Va.	Balboa, C. Z.				
No. 281 [3]	16	14.10	20	7.35	20	23.10			American	U. S. Navy	310.0	30 0		Yorktown, Va.	Balboa, C. Z.				
No. 285 [3]	16	14.10	20	7.35	21	00.25			American	U. S. Navy	310 0	30 0		Yorktown, Va.	Balboa, C. Z.				
No. 283 [3]	16	14.10	20	7.35	21	00.25			American	U. S. Navy	310 0	30 0		Yorktown, Va.	Balboa, C. Z.				
Columbian	19	19.40	20	8.30	20	23.15	21	00.27	American	Amer.-Hawaiian Line	404 0	54 0	19 7	Boston, Mass.	Portland, Oreg	General	2,442	6,760	4,450
No. 243 [3]	16	14.10	20	9.05	21	1.54			American	U. S. Navy	310 0	30 0		Yorktown, Va.	Balboa, C. Z.				
No. 244 [3]	16	14.10	20	9.05	21	1.54			American	U. S. Navy	310 0	30 0		Yorktown, Va.	Balboa, C. Z.				
No. 245 [3]	16	14.10	20	9.15	21	00.25			American	U. S. Navy	310 0	30 0		Yorktown, Va.	Balboa, C. Z.				
No. 286 [3]	16	14.10	20	9.15	21	00.25			American	U. S. Navy	310 0	30 0		Yorktown, Va.	Balboa, C. Z.				
Vredenburg	19	21.40	20	10.05	21	2.03	21	3.10	Dutch	Halcyon Line	453 9	59 9	18 6	Rotterdam, Holland	Vancouver, B. C.	Ballast		8,058	5,392
Larry Doheny [1]	20	6.47	20	10.40	21	3.32	21	4.42	American	Acewood Petroleum Co.	430 0	59.2	19.4	Baltimore, Md.	Los Angeles, Calif.	Ballast		7,494	5,198
Heinrich Arp	20	7.20	20	10.30	21	3.25	21	9.44	German	Colombian Mar. Co.	237 0	37.0	12 0	New York, N. Y.	Buenaventura, Col.	General	864	1,718	1,167
San Jose	20	6.00	20	12.10	21	5.10	21	6.21	American	United Fruit Co	330 0	44 6	20 0	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	797	3,670	2,353
Manhattan Island	20	11.25	20	12.25	21	4.47	21	5.41	American	Redwood Line	386 0	52.2	23 0	Mobile, Ala.	San Francisco Calif.	Sulphur, general	5,296	5,696	4,125
Pacific Fir	20	10.30	20	13.52	21	5.54	21	7.00	American	Dimon S. S. Corp	410 5	54.0	22 6	New York, N. Y.	Tacoma, Wash.	General	5,908	6,622	4,882
Yankee Arrow [3]	20	13.05	20	15.10	21	7.12	21	8.44	American	Standard Transp. Co.	468 3	62.7	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,841	6,946
Sandpiper [5]	19	7.25	20	9.10	20	21.50			American	U. S. Navy	180 0	35.6		Yorktown, Va.	Balboa, C. Z.				
Camden [6]	16	00.50	21	6.10	21	18.46			American	U. S. Navy	389.2	48 0		Norfolk, Va.	Balboa, C. Z.				
Wright [7]	17	6.30	21	6.25	21	19.49			American	U. S. Navy	448 0	58 0		Norfolk, Va.	Balboa, C. Z.				
Venezuela	19	20.00	21	7.04	21	20 58	22	17 15	American	Panama Mail S. S. Co.	380 0	48.7	22 0	New York, N. Y.	San Francisco, Cal.	General	2,066	6,033	4,353
Mansepool	20	13.18	21	8.50	21	22.41	21	23 46	British	Can. Wheat Producers.	405 0	53 6	16 0	Oran, Algeria	Vancouver, B. C.	Ballast		5,875	4,288
S-18 [8]	15	15.00	21	7.10	21	21.20			American	U. S. Navy	219.3	20 8		Norfolk, Va.	Balboa, C. Z.				
S-19 [8]	15	15.00	21	7.10	21	21.20			American	U. S. Navy	219.3	20 8		Norfolk, Va.	Balboa, C. Z.				
S-23 [8]	15	15.00	21	7.10	21	21.20			American	U. S. Navy	219.3	20.8		Norfolk, Va.	Balboa, C. Z.				
S-12 [8]	15	14.45	21	7.10	21	22.30			American	U. S. Navy	231.0	21.10		Norfolk, Va.	Balboa, C. Z.				
S-13 [8]	15	14.45	21	7.10	21	22.30			American	U. S. Navy	231.0	21 10		Norfolk, Va.	Balboa, C. Z.				
S-10 [8]	15	23.59	21	7.10	21	22.30			American	U. S. Navy	231.0	21.10		Norfolk, Va.	Balboa, C. Z.				
S-6 [8]	15	14.00	21	8.10	21	23.56			American	U. S. Navy	231.0	21.10		Norfolk, Va.	Balboa, C. Z.				

[1] Tanker. [2] Mine layer. [3] Destroyer. [4] Motor ship. [5] Mine sweeper. [6] Submarine tender. [7] Aircraft tender. [8] Submarine.

S–7 [8]	15	14.00	21	8 10	21	23.56					American	U. S. Navy	231.0	21.10		Norfolk, Va.	Balboa, C. Z								
S–8 [8]	15	14.00	21	8.10	22	1 55					American	U. S. Navy	231.0	21.10		Norfolk, Va.	Balboa, C. Z								
S–9 [8]	15	14.00	21	8.10	22	1 55					American	U. S. Navy	231.0	21.10		Norfolk, Va.	Balboa, C. Z								
K. R. Kingsbury [4]	20	15 25	21	9 55	22	00 01	22	1 25			American	Standard Oil Co	440.0	58.2	21.0	New York, N. Y.	Los Angeles, Calif.	Ballast			9,033	5,938			
City of Canberra	20	23 20	21	10 40	22	1 45	22	3 19			British	Ellerman & Bucknall	453.0	57.0	23.0	New York, N. Y.	Adelaide, Australia	General		4,133	9,175	6,794			
Grantley Hall	20	22 20	21	11 35	22	3 20	22	4 45			British	Cunard Line	412.0	56.0	24.0	Philadelphia, Pa.	Fremantle, Aust'lia	General		7,496	6,554	4,633			
Buenos Aires	20	21 15	21	12 50	22	4 17	22	5 29			Spanish	Com. Tras. de Barcelona	407.5	48.0	21.9	Barcelona, Spain	Valparaiso, Chile	General		180	5,624	3,844			
Touraine [4]	21	10 20	21	16 15	22	6 30	22	7 58			Norwegian	Barber Line	435.0	56.0	25.0	New York, N. Y.	Taku Bar, China	General		8,702	8,037	5,843			
Clan Matheson	21	7 45	21	14 05	22	5 19	22	6 29			British	Clan Line	400.0	51.0	17.0	Norfolk, Va.	Tocopilla, Chile	Ballast			6,085	4,179			
Teal [5]	19	10 20	21	14 58	22	3 24					American	U. S. Navy	180.0	35.6		Norfolk, Va.	Balboa, C. Z								
Lark [5]	19	7 25	21	6 25	21	18 46					American	U. S. Navy	180.0	35.6		Norfolk, Va.	Balboa, C. Z								
Edw. P. Nones [9]			21	8 50	22	3.30					American	U. S. Army	101.0	23.5		Cristobal, C. Z	Balboa, C. Z								
L–23 [10]			21		21	12 39					American	U. S. Army				Cristobal, C. Z	Gatun, C. Z								
Ionic	21	00 15	22	6 15	22	19 36	22	20 45			British	Shaw, Savill & Albion	500.3	63.3	30.0	London, England	Pt. Chalmers, N. Z.	General		8,008	12,872	9,577			
Ucayali	16	17 18	22	6 15	22	20 47	22	22 15			Peruvian	Peruvian Line	374.0	46.3	17.6	Cristobal, C. Z	Callao, Peru	General		261	4,466	2,405			
Point Judith	21	22 10	22	6 30	22	21 09	22	22 15			American	Swayne & Hoyt	289.0	44.0	19.0	Corpus Christi, Tex.	San Francisco, Cal.	General		3,009	2,902	1,962			
San Francisco [4]	20	19 45	22	7 15	22	21 54	23	6 10			German	Hamburg-American Line	432 3	59.1	23.0	Hamburg, Germany	Vancouver, B. C.	Bananas, general		4,341	8,454	6,344			
Lagarto [4]	21	9 17	22	7 40	22	23.00	23	7 40			British	Pacific Steam Nav. Co	385.0	52.0	19.0	Glasgow-England	Corral, Chile	General		2,703½	5,656	3,823			
Detroit [11]	22	7 20	22	8 00	22	18 22					American	U. S. Navy	550 0	55 0		Norfolk, Va.	Balboa, C. Z								
Caradoc [11]	19	9 25	22	8 29	23	00 22	28	15 40			British	British Government	425.0	52.0	17.4	Port Limon, C. R.	Balboa, C. Z								
Acajutla	12	15 50	22	9 57	23	00 27	23	1 38			British	Pacific Steam Nav. Co	215.0	34.0	17.0	Cristobal, C. Z	Champerico, Guat	General		1,104	1,273	706			
Bennekom	21	10 30	22	9 40	23	18 02	23	19 40			Dutch	Royal Neth. S. S. Co	449.0	58 0	23.3	Hamburg, Germany	Corral, Chile	General		5,128	7,849	5,806			
Chateau Thierry [12]	21	1 20	22	10 35	23	1 25	23	2 33			American	U. S. Army	436 0	58.0	25.0	Brooklyn, N. Y	Honolulu, T. H.	Army supplies		468					
Major Pullen [10]			22		22	10 22					American	U. S. Army				Cristobal, C. Z	Gatun, C. Z								
Quail [5]			22	6 30	22	18 22					American	U. S. Navy	180 0	35.6		Cristobal, C. Z	Balboa, C. Z								
Buccaneer [10]			22		22	10 22					American	H. C. Downey				Cristobal, C. Z	Gatun, C. Z				2	2			
Argun Maru	21	18.40	22	12 45	23	19 12	23	20 20			Japanese	Osaka Shosen Kaisha	415.0	55.0	24.0	New York, N. Y.	Shanghai, China	[13]		6,462	7,273	5,294			
Franklin K. Lane [4]	21	20 40	22	14 10	23	20 40	23	21 45			American	Huasteca Petroleum Co.	435.0	56 2	22.0	New Orleans, La	Los Angeles, Calif	Ballast			7,405	5,131			
Santa Cecelia	21	22 50	22	15 50	23	21 45	23	23 10			American	Grace Line	408.0	55.2	19.0	New York, N. Y.	Chimbote, Peru	General		2,392	6,672	4,905			
Sunbeam [4]	22	2 45	22	16 50	23	22 50	23	23 55			American	Sun Oil Co	429.3	59.2	21.3	Philadelphia, Pa.	Los Angeles, Calif	Ballast			7,709	5,562			
Edward Luckenbach	22	5 20	23	6 30	23	23 46	24	00 45			American	Luckenbach Line	436.0	57.0	23.0	Houston, Texas	Tacoma, Wash	General		4,627	8,543	6,427			
Challenger [4]	22	7 00	23	7 30	24	1 00	24	2 05			American	Isthmian S. S. Lines	410 0	56.0	27 8	Baltimore, Md	Tacoma, Wash	Steel, general		8,759	7,780	5,811			
Pilar de Larrinaga	22	8 40	23	9 30	24	1 55	24	2 55			British	Larrinaga S. S. Co	445.0	58.0	19.0	No. Shields, Eng	Vancouver, B. C.	Ballast			7,643	5,562			
Maliko	22	11 20	23	10 40	24	2 55	24	4 00			American	Amer.-Hawaiian Line	415.0	53.0	19.0	Boston, Mass	Seattle, Wash	General		2,553	7,072	4,944			
Salmonpool	22	17 20	23	10 50	24	4 16	24	5 34			British	Sir. R. Ropner & Co	389.0	55.0	15.6	Vradgnizzia, Yu. Sl.	Vancouver, B. C.	Ballast			5,801	4,346			
Antonios G. Lemos	22	18 50	23	11 35	24	5 21	24	6 26			Greek	S. & P. Lemos	381.0	52.0	12.0	St. Thomas, V. I.	Arica, Chile	Ballast			5,505	3,984			
Flottbek	23	4 15	23	12 05	24	5 21	24	9 52			German	Knohr & Burchard	280.0	40.0	13.0	Halifax, N. S.	Yavaros, Mexico	Ballast			2,221	1,469			
Saxicava [4]	22	19.55	23	13 40	24	6 17	24	7 33			British	Anglo-Saxon Pet. Co	411.7	53.2	20.0	New York, N. Y.	Los Angeles, Calif	Ballast			6,118	4,239			
Swan [5]			23	6 30	23	18 05					American	U. S. Navy	180.0	35.6		Cristobal, C. Z	Balboa, C. Z								
Walter A. Luckenbach	22	20.27	23	15.45	24	20.00	24	8 55			American	Luckenbach Line	446 5	56.1	21.2	Boston, Mass	Seattle, Wash	General		3,907	8,785	6,567			
Brazos [4]	22	12.15	23	16.20	24	18.46					American	U. S. Navy	455.0	56.0		Norfolk, Va.	Balboa, C. Z								

[4] Tanker. [5] Tug. [10] Launch. [11] Cruiser. [12] U. S. Army transport. [13] Tinplate, cotton, etc.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Denver [14]	23	00.55	24	6.05	24	20.10			American	U. S. Navy	292.0	44.0		Bluefields, Nica'gua	Balboa, C. Z				
Cherry Branch	22	21.10	24	6.30	24	22.38	24	23.53	British	F. & W. Ritson.	400.5	51.9	18.0	Liverpool, England	Valparaiso, Chile	General	2,687	5,403	3,960
Jefferson Myers	22	21.35	24	6.40	25	00.06	25	00.53	American	States S. S. Co	440.0	56.0	20.6	Jacksonville, Fla.	Portland, Oreg	General	4,027	8,300	6,020
Chas. R. McCormick	23	5.00	24	7.30	25	1.10	25	2.30	American	Munson, McCor'k Line	401.0	53.2	23.10	New York, N. Y.	Seattle, Wash.	General	6,000	7,082	5,167
Santa Eulalia	23	20.10	24	7.50	25	00.12	25	1.27	American	Isthmian S. S. Lines	251.0	43.0	25.2	Baltimore, Md	Hilo, T. H.	([16])	3,096	2,823	1,730
Myriam [1]	23	7.18	24	7.42	25	2.17	25	3.40	French	Anglo-Saxon Pet. Co	425.0	57.0	26.0	Fall River, Mass.	Los Angeles, Calif.	Ballast		7,178	5,072
Sylvan Arrow [1]	23	11.30	24	8.45	25	3.35	25	4.42	American	Standard Oil Co	467.6	62.7	28.0	Beaumont, Texas	Hongkong, China	Kerosene	11,760	9,698	6,900
Santa Barbara [15]	24	1.55	24	9.38	24	21.16	25	2.55	American	Grace Line	466.0	64.0	23.7	New York, N. Y.	Valparaiso, Chile	General	2,601	10,687	6,633
King City	23	13.35	24	9.45	25	4.25	25	5.24	British	Reardon Smith Line	400.0	51.0	15.6	Manchester, Eng	Vancouver, B. C.	Ballast		6,993	5,397
Counsellor	23	6.38	24	11.10	25	5.32	25	6.30	British	T. & J. Harrison.	395.5	52.5	18.0	Liverpool, England	Vancouver, B. C.	Ballast		5,753	3,857
Indian City	23	22.24	24	13.26	25	20.06	25	21.20	British	St. Just S. S. Co., Ltd	411.0	45.0	17.0	Hull, England	Vancouver, B. C.	Ballast		6,512	4,655
Durazzo	20	14.20	24	13.45	25	1.20	25	2.30	German	Hamburg-American Line	226.0	34.0	15.4	Cristobal, C. Z	Puntarenas, C. R.	General	1,680	1,633	1,041
Drechtdijk [15]	23	6.20	24	16.55	25	21.24	26	00.44	Dutch.	Holland-American Line	485.5	62.0	22.6	Rotterdam, Holland	Vancouver, B. C.	Bananas, general	2,357	10,793	7,619
Cengio	24	21.00	25	6.20	25	22.20	26	00.25	Italian	Parodi & Corrado.	440.0	51.6	15.0	Genoa, Italy	Arica, Chile	Ballast			
Pajala [15]	25	1.50	25	6.40	25	23.28	26	00.44	Swedish	Can.-Amer. Ship. Co	418.0	55.0	17.0	Hamburg, Germany	Vancouver, B. C.	Ballast		7,274	5,213
Virginia	25	6.15	25	7.25	25	19.02	26	2.12	American	Panama-Pacific Line	613.0	80.0	26.6	New York, N. Y.	San Francisco, Cal.	General	2,231		
West Keats	25	3.40	25	7.25	26	00.52	26	2.12	American	Calif. & East'n S. S. Co.	410.5	54.3	20.0	Philadelphia, Pa.	Seattle, Wash.	General	3,821	6,572	4,900
Oakmar	25	4.40	25	8.30	26	17.52	26	7.06	American	Calmar S. S. Corp	384.4	51.2	24.0	Baltimore, Md.	Seattle, Wash	Steel, general	6,418	6,327	4,433
Sunugentco	25	8.30	25	8.40	25	23.35	26	00.44	American	Transmarine Lines	324.0	46.0	19.0	Mobile, Ala	Seattle, Wash	General	1,490	3,984	2,628
Selma City	25	7.25	25	8.55	26	19.25	27	7.19	American	Isthmian S. S. Lines	424.0	56.0	25.0	Baltimore, Md	Shanghai, China	General	8,100	7,611	5,450
Galveston [14]	24	18.00	25	10.10	27	19.46			American	U. S. Navy	292.0	44.0		Cristobal, C. Z	Balboa, C. Z				
Millais	25	9.05	25	12.40	26	20.30	26	21.20	British	Royal Mail S. P. Co	435.0	55.3	21.0	Barry, England	Vancouver, B. C.	Ballast			
Point Fermin	25	12.05	25	13.25	26	00.55	26	5.19	American	Swayne & Hoyt	324.0	46.2	22.6	Tampa, Fla	San Francisco, Cal.	General	5,023	3,984	2,617
Treworlas	25	13.20	25	15.25	26	21.34	26	23.21	British	Amer.-Australian Line.	400.0	53.0	22.0	New York, N. Y.	Dunedin, N. Z	General	3,145	5,146	4,460
West Ivis	25	13.25	25	16.00	26	22.55	27	2.42	British	Chas. McCormack Line	410.5	54.2	16.0	New Orleans, La.	San Francisco, Cal.	Ballast			
Uribe	6	18.35	26	6.20	26	21.19	26	21.20	Colombian	Estrada G. Hermanos	227.0	31.0	11.3	Cristobal, C. Z	Buenaventura, Col.	General	600	1,154	663
Suspearco	25	20.25	26	6.30	26	19.06	26	20.09	American	Transmarine Lines	324.0	46.2	18.0	New York, N. Y.	San Francisco, Cal.	General	1,380	3,984	2,612
Gracia	24	9.13	26	8.15	26	23.55	27	1.04	British	Donaldson Line	415.0	54.0	19.10	Glasgow-England	Vancouver, B. C.	Bananas, general	712	6,809	4,842
Impero	25	8.47	26	9.50	27	2.07	27	3.05	Italian	Italian-Chilean Com. Co.	442.0	52.0	20.0	Naples, Italy	Valparaiso, Chile	General	651	7,004	4,849
Agwimex [1]	25	23.45	26	10.50	27	3.09	27	4.00	American	Standard Oil Co	480.5	66.0	22.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,394	6,306
Pat Doheny [1]	26	00.25	26	11.00	27	4.00	27	5.00	American	Richfield Oil Co	430.2	59.2	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,978	5,840
Edgefield	26	4.00	26	12.30	27	5.04	27	6.41	American	Tampa Interocean Co.	410.0	54.0	24.11	Mobile, Ala	Manila, Philippines	General	6,730	7,476	5,900
Montrolite [1 15]	26	4.45	26	12.45	27	6.06	27	7.19	British	Imperial Oil Co	510.0	68.0	22.0	New York, N. Y.	Talara, Peru	Ballast			
Taormina	25	5.00	26	13.25	27	1.40	27	2.05	Italian	Nav. Gen. Italiana.	482.0	58.3	26.3	Genoa, Italy	Valparaiso, Chile	General	1,907	9,760	6,236
Caldas [15]	23	11.35	26	13.25	26	22.56	27	16.30	Colombian	National Navigation Co	116.0	21.0	7.10	Cristobal, C. Z	Buenaventura, Col.	General	266	211	124
Salinas [1]	26	11.40	26	14.55	27	18.16			American	U. S. Navy	463.0	60.0		Norfolk, Va	Balboa, C. Z	Fuel oil	10,432		

[1] Tanker. [14] Cruiser. [15] Motor ship. [16] Sulphate ammonia, tinplate, and general.

Fernmoor	18	23.00	20	6.24	20	15.25	20	17.40	British	W. Runciman & Co.	399.9	52.9	26.6	Vancouver, B. C.	Hamburg, Germany	Wheat	7,916	5,959	4,246
Durazzo	19	14.40	20	6.25	20	14.20	24	13.45	German	Hamburg-American Line	227.0	34.4	14.0	Guayaquil, Ecua'r	Cristobal, C. Z	Coffee, cocoa	696	1,633	1,041
Filleigh	19	1.50	20	7.49	20	16.35	20	16.35	British	W. I. Tatem, Ltd	395.5	56.4	24.8	Vancouver, B. C.	Fayal [21]	Wheat	8,142	6,427	4,548
El Panquiaco [17]			20	7.55	20	15.25	20	15.25	Panaman	Panaman Government	125.6	23.6		Balboa, C. Z	Cristobal, C. Z				
Lancaster	19	2.30	20	8.02	20	17.45	20	23.30	American	Argonaut S. S. Co.	434.3	57.7	27.0	Seattle, Wash	Avonmouth, Eng	General	8,909	7,935	5,841
Baarn	19	2.30	20	9.34	20	19.15	21	2.35	Dutch	Royal Neth. S. S. Co.	400.0	58.3	26.3	Valparaiso, Chile	Hamburg, Germany	General	8,119	7,819	6,101
Albisola	19	7.30	20	10.46	20	19.35	20	20.30	Italian	Cor. Soc. Anon di. Nav.	381.8	50.6	26.3	Tocopilla, Chile	Azores [21]	Nitrates	7,530	5,346	4,104
Edgar Quinet [18]	19	13.00	20	11.34	20	19.50	28	9.10	French	French Government	521.0	70.5	27.4	San Diego, Calif	Cristobal, C. Z				
Lubrafol [2 19]	19	13.00	20	12.46	20	20.55	20	20.55	Belgian	Soc. Anonyme D'Arm't	440.8	57.4	27.0	San Francisco, Cal.	Antwerp, Belgium	([24])	9,600	7,615	4,576
Norfolk	19	14.05	20	13.39	20	21.50	20	21.50	British	N. Z. Shipping Co	520.0	64.0	24.0	Lyttleton, N. Z.	Liverpool, England	Frozen, general	8,368	12,963	9,291
Hampton Roads [1]	19	16.15	20	14.19	20	23.05	20	23.05	American	Oil Transport Co	431.0	59.2	27.0	La Libertad, Ecd'r.	Philadelphia, Pa.	Crude oil	10,200	8,093	5,347
Warkworth	19	17.00	21	6.07	21	13.55	21	15.00	British	R. S. Dalgliesh & Co.	401.2	53.4	23.1	Vancouver, B. C.	Lexicoes, Portugal	Wheat	6,826	5,578	3,685
J. W. Van Dyke [2 19]	14	1.24	21	6.48	21	15.40	21	15.40	American	Atlantic Refining Co	364.9	51.0	25.5	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	6,900	5,174	3,528
Tilthorn	20	1.30	21	7.50	21	16.45	21	16.45	Norwegian	O. G. & L. H. Olsen	420.2	53.9	25.5	Iquique, Chile	Pensacola, Fla	Nitrates	10,200	6,591	4,730
Saale [19]	20	4.30	21	8.34	21	18.10	22	00.55	German	North German Lloyd	498.0	61.0	27.0	Vancouver, B. C.	Hamburg, Germany	General	8,529	9,335	6,844
William H. Doheny [1]	20	6.35	21	9.07	21	18.25	21	18.25	American	Pan-Amer. Pet. & Tr. Co.	435.0	56.2	26.0	Los Angeles, Calif	Baltimore, Md	Gasoline	9,600	7,406	5,111
Peterton	20	7.35	21	9.45	21	19.55	21	20.55	British	R. Chapman & Son	400.0	52.3	24.0	Vancouver, B. C.	Rotterdam, Holland	Wheat	7,378	5,885	4,144
Carica Milica	20	10.15	21	11.02	21	21.50	21	21.50	Yugoslav	Baburizza & Co	425.0	56.1	25.6	Antofagasta, Chile	Azores [21]	Nitrates	9,505	7,079	5,105
Mayari	21	10.25	21	12.02	21	21.00	22	19.00	Panaman	United Fruit Co	303.0	47.0	11.0	Pto. Armuelles, R. P	New York, N. Y.	Ballast		3,014	1,742
El Grillo [1]	20	15.25	21	13.51	21	23.00	21	23.50	British	C. T. Bowring & Co	440.0	57.5	27.5	Lobitos, Peru	Halifax, N. S.	Crude oil	9,553	7,468	5,042
Weirbank [16]	21	7.00	21	15.21	22	00.05	22	3.50	British	A. Weir & Co	420.1	53.9	26.0	Dairen, Manchuria	Stettin, Germany	Soya beans	8,000	7,091	5,062
No. 5 [20]			21		21				American	U. S. Navy				Balboa, C. Z	Gatun Lake, C. Z.				
Helen Olmsted [1]	21	3.30	22	5.44	22	14.15	22	14.15	American	Texas S. S. Co	425.8	57.0	26.0	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,695	7,484	5,216
Yeifuku Maru	21	7.30	22	6.30	22	15.00	22	17.20	Japanese	Kokusai Kisen Kaisha	385.0	51.0	25.6	Pulupandan, P. I.	Boston, Mass	Sugar	7,400	5,933	4,695
Sacramento	21	8.30	22	7.36	22	16.00	22	16.00	American	Charles Nelson & Co.	380.0	53.2	23.0	Los Angeles, Calif	Norfolk, Va.	Lumber, general	6,753	5,653	4,122
Iowan	21	8.23	22	8.59	22	16.35	22	16.35	American	Amer.-Hawaiian Line	407.7	53.7	26.0	Portland, Oreg	Boston, Mass	General	7,857	7,079	5,028
Aymeric	21	10.55	22	9.51	22	17.40	22	17.40	British	A. Weir & Co	400.3	52.3	26.0	Tocopilla, Chile	Mobile, Ala	Nitrates	7,900	6,076	4,463
Levant Arrow [1]	21	13.06	22	10.26	22	20.05	23	13.00	American	Standard Transp. Co.	468.3	62.7	27.4	Los Angeles, Calif	New York, N. Y.	([23])	10,829	9,841	6,985
Langleeford	21	14.00	22	12.08	22	20.20	22	21.10	British	F. Carrick & Co	382.6	52.6	22.6	Vancouver, B. C.	Europe	Wheat	6,876	5,195	3,515
Iskra	22	7.00	22	12.22	22	21.25	23	8.30	Yugoslav	Gerhard Letzon	345.0	48.9	25.0	Caleta Colosa, Chile	Azores [21]	Nitrates	6,500	4,569	3,381
W. L. Steed [1]	21	15.00	22	13.20	22	22.35	22	22.35	American	Huasteca Petroleum Co.	416.8	56.1	27.0	Los Angeles, Calif	Baltimore, Md	Gasoline	8,800	6,751	4,795
Defacto	21	16.30	22	14.12	22	23.40	22	23.40	American	Amer. Sugar & Refining	386.8	52.2	24.0	Iquique, Chile	Wilmington, N. C	Nitrates	7,010	5,682	4,086
Okeania	20	23.30	23	1.25	23	8.40	23	8.40	Greek	Mike Carivales	400.0	53.0	24.0	Taltal, Chile	Falmouth, England	Nitrates	7,200	5,677	4,126
Isis [19]	21	20.00	23	2.07	23	10.30	24	13.35	German	Hamburg-American Line	376.1	51.7	25.0	Valparaiso, Chile	Hamburg, Germany	General	6,806	5,788	4,027
Caldas [19]	22	19.20	23	3.00	23	11.35	26	13.25	Colombian	National Navigation Co.	116.0	21.1	9.6	Buenaventura, Col.	Cristobal, C. Z	General	248	211	174
Orangemoor	22	4.25	23	3.05	23	11.40	23	12.45	British	Moor Line, Ltd	399.6	53.0	25.0	Portland, Oreg	Cork, Ireland	Wheat	8,016	5,888	4,236
F. J. Luckenbach	22	4.30	23	3.50	23	12.50	23	12.50	American	Luckenbach Line	446.0	56.1	28.0	Portland, Oreg	Boston, Mass	Lumber, general	7,588	8,508	6,179
Chilore	22	9.30	23	5.17	23	16.25	23	16.25	American	Ore S. S. Corp	549.6	72.2	34.4	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	14,538	9,348
Mongolia	22	13.10	23	6.39	23	14.55	23	15.30	American	Panama-Pacific Line	600.0	65.0	30.4	San Francisco, Cal.	New York, N. Y.	([21])	7,150	17,041	11,426
New Britain	22	13.40	23	8.05	23	17.00	23	17.00	American	Calif. & East'n S. S. Co.	386.8	52.2	24.8	Los Angeles, Calif	Baltimore, Md	Lumber	6,999	5,684	4,082
Teno	22	15.40	23	9.11	23	18.00	23	24.00	Chilean	Chilean Line	422.8	56.2	26.0	Pto. Montt, Chile	New York, N. Y.	General	4,457	7,764	4,672
Canadolite [1 19]	22	4.50	23	10.17	23	21.30	24	17.00	British	Imperial Oil Co., Ltd	510.9	68.2	30.0	Lobitos, Peru	New York, N. Y.	Crude oil	15,785	11,556	7,658
El Salvador	22	15.30	23	11.12	23	19.30	25	6.00	American	Panama Mail S. S. Co.	360.2	51.6	25.4	San Francisco, Cal.	New York, N. Y.	Coffee, general	2,350	5,710	4,023
Kaloudo	22	14.30	23	11.25	23	21.30	23	22.15	Greek	George Assimomities	389.8	53.2	26.0	Tocopilla, Chile	Azores [21]	Nitrates	7,400	5,601	3,877
Vikingstar	22	12.10	23	11.52	23	21.50	23	21.50	British	Blue Star Line	400.3	52.3	23.6	San Francisco, Cal.	Glasgow, Scotland	General	4,800	6,870	4,909

[1] Tanker. [17] Coast guard. [18] Cruiser. [19] Motor ship. [20] Navy launch. [21] For orders. [22] Lubricating and gas oil. [23] Kerosene and gasoline. [24] Canned goods and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Zrinski	22	8 30	23	13 55	24	00 55	24	8 49	Yugoslav	Baburizza & Co	400 0	53 0	26 4	Antofagasta, Chile.	Alexandria, Egypt	Nitrates	8,471	6,207	4,536
Limon	23	12 50	23	14 28	23	23 10	25	5 30	American	United Fruit Co	330 6	44 5	20 0	San Francisco, Cal.	Port Limon, C. R.	General	1,265	3,675	2,229
Nitro [25]	22	14 15	24	6 05	24	12 45	26	23 16	American	U. S. Navy	460 0	61 0	23 3	Bremerton, Wash.	Hampton R'ds, Va.	General	701		
Hague Maru	22	17 10	24	6 43	24	14 55	24	21 30	Japanese	Osaka Shosen Kaisha	407 2	50 8	22 6	Hongkong, China.	New York, N. Y.	General	6,555	6,533	4,772
Monagas [1 26]	20	4 55	24	6 51	24	15 00	24	15 35	Venezuelan	Venezuela Gulf Oil Co.	305 0	50 2	9 6	Balboa, C. Z	Amuay, Venezuela.	Ballast			
Robin Gray	22	18 00	24	8 13	24	16 45	24	16 45	American	Seas Shipping Co	424 8	55 2	25 0	Seattle, Wash	Baltimore, Md	[20]	7,332	7,274	5,542
Galveston [27]			24	8 22	24	18 06	25	10 10	American	U. S. Navy	292 0	44 0		Balboa, C. Z	Cristobal, C. Z				
Radnorshire	22	18 30	24	9 27	24	18 20	25	15 15	British	Royal Mail S. P. Co	412 5	55 5	28 6	Vancouver, B. C.	Rotterdam, Holland	General	8,523	6,898	4,887
Antinous	22	19 30	24	10 40	24	19 05	24	20 30	British	Andrew Weir & Co	401 6	54 3	23 5	N. Westminster	Belfast, Ireland	[30]	7,496	6,314	4,637
E. Ciervo [1]	22	00 55	24	11 39	24	19 55	25	17 07	British	C. T. Bowring & Co	407 7	52 2	22 6	San Francisco, Cal.	Land's End, Eng. [31]	Gasoline	5,198	6,046	4,326
Hadnot [1]	23	00 05	24	12 31	24	21 10	24	21 19	American	Cities Service Trans. Co.	416 9	56 2	27 7	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,900	6,706	4,639
AngloAustralian	23	1 00	24	13 50	24	23 00	25	4 55	British	Lawther, Latta & Co.	426 0	58 0	24 6	Vancouver, B. C.	London, England	Wheat	9,130	7,341	5,444
Istok	23	1 30	24	14 42	25	00 15	25	3 05	Yugoslav	Baburizza & Co	423 5	56 0	27 7	Antofagasta, Chile.	Azores [31]	Nitrates	9,072	6,446	4,741
Willzipo	23	4 30	25	4 55	25	12 30	25	12 30	American	Williams S. S. Line	415 0	55 7	27 3	Seattle, Wash.	New York, N. Y.	[32]	8,558	7,731	5,805
Eugenia	23	8 00	25	5 55	25	14 10	25	15 55	Greek	Livanos Brothers	365 0	51 6	29 0	Iquique, Chile.	Azores [31]	Nitrates	6,500	4,504	3,285
Calmar	23	12 15	25	6 47	25	14 20	25	14 20	American	Calmar S. S. Corp	394 6	51 2	23 8	Vancouver, B. C.	Boston, Mass	Lumber	6,060	6,347	4,453
R. J. Hanna [1]	23	14 10	25	7 58	25	15 35	25	15 35	American	Standard Oil Co. of Cal.	435 0	56 2	28 6	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,875	7,639	5,206
York City	23	14 15	25	9 02	25	17 00	25	18 00	British	Sir W. R. Smith & Co	411 8	55 0	28 4	Vancouver, B. C.	Genoa, Italy	Wheat	9,020	7,038	5,166
Massburg	23	14 15	25	9 54	25	18 05	25	18 05	Dutch	Halcyon Lyn	454 7	60 1	24 5	Vancouver, B. C.	Rotterdam, Holland	Wheat	9,687	8,062	5,389
Key West	23	20 00	25	10 50	25	19 20	25	19 20	Norwegian	Knut Knutsen	381 4	53 2	24 0	Antofagasta, Chile.	Land's End, Eng. [31]	General	6,598	5,885	4,157
Eleni	24	1 10	25	12 38	25	20 40	25	20 40	Greek	An. Th. Callinicos	420 7	54 2	25 6	Iquique, Chile.	Azores [31]	Nitrates	8,700	6,371	4,552
Matakana	24	5 00	25	12 57	25	22 25	26	2 55	British	Shaw, Savill & Albion	477 5	63 0	24 0	Pt. Chalmers, N. Z.	London, England	Frozen, general.	5,820	11,216	7,884
Kattegat [1 28]	24	6 00	25	13 56	25	22 45	25	22 45	German	Atlantic Tank Rhederei	428 4	55 0	25 7	Los Angeles, Calif.	Ellesmere, England	Benzine	8,324	6,387	4,133
Vega	25	10 52	25	14 45	25	00 20	27	22 20	American	U. S. Navy	390 0	54 2	17 9	Mare Island, Calif	Boston, Mass	General	2,447		
Noorderdijk	24	14 00	25	23 45	26	8 40	26	8 40	Dutch	Holland-American Line	470 0	58 5	29 8	Victoria, B. C.	Antwerp, Belgium	General	10,517	8,888	6,612
Marija Racic	24	18 30	26	00 55	26	10 10	26	11 58	Yugoslav	Baburizza & Co	378 1	52 3	22 7	Tocopilla, Chile	Azores [31]	Nitrates	6,970	5,181	3,713
Nyanza	24	23 40	26	1 45	26	10 20	26	11 00	British	Wessel, Duval & Co	402 7	52 2	24 6	Antofagasta, Chile.	Savannah, Ga.	Nitrates	7,800	5,583	4,073
Hanley	25	3 00	26	2 51	26	11 45	26	11 45	American	Hanley S. S. Co	440 0	56 0	29 0	Everett, Wash	Baltimore, Md.	Lumber	9,600	8,310	6,005
Georgie	25	3 00	26	4 05	26	12 50	27	16 07	French	French Line	410 1	52 7	25 0	Vancouver, B. C.	Le Havre, France.	General	7,593	6,830	4,932
Steelore	24	10 46	26	5 21	26	20 30	26	20 30	American	Ore S. S. Corp	550 0	72 2	34 0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	21,000	15,551	4,297
Alaskan	25	6 00	26	6 10	26	20 40	26	23 40	American	Amer.-Hawaiian Line	415 0	54 0	24 1	Tacoma, Wash.	Boston, Mass	General	5,595	7,380	5,339
Elmpark	25	6 00	26	7 32	26	16 00	26	16 00	British	J. & J. Denholm, Ltd.	410 0	53 5	26 0	Iquique, Chile.	Dunkirk, France	Nitrates	7,900	6,565	4,728
Sabotawan	25	6 51	26	8 41	26	17 15	26	17 15	American	Redwood Line	386 8	52 2	23 8	San Francisco, Cal.	Mobile, Ala	[33]	5,975	5,708	4,138
Port Wellington	25	9 30	26	9 45	26	18 40	27	8 35	British	Com'lth & Dom. Line	469 1	60 0	26 0	Napier, N. Z.	London, England	[34]	7,527	10,381	7,551
Orcoma	26	8 45	26	10 43	26	20 00	27	5 15	British	Pacific Steam Nav. Co.	511 6	62 2	27 4	Talcahuano, Chile.	Liverpool, England	General	6,493	12,417	8,305
Silkeborg	26	6 30	26	11 49	26	23 20	27	1 10	Danish	C. K. Hansen	265 0	42 2	18 0	Chemainus, B. C.	Guadeloupe, F.W.I.	General	2,584	2,040	1,355
Ionicstar	25	10 00	26	12 44	26	21 45	26	21 45	British	Blue Star Line	390 0	53 2	25 0	N. Westminster	Newcastle, England	Frozen, general.	4,338	5,989	4,442
Sun [1 28]	25	15 05	26	14 01	27	00 15	27	00 15	American	Sun Oil Co	480 6	66 0	29 6	Los Angeles, Calif.	Chester, Pa	Gasoline	13,622	9,620	6,424
Manizales	26	10 30	26	14 00	26	23 10			German	Roland Line	216 5	33 9	17 0	Buenaventura, Col.	Cristobal, C. Z	General	752	1,132	741

[1] Tanker. [25] Supply ship. [26] January 19 for dry-docking only. [27] Cruiser. [28] Motor ship. [29] Lumber, pulp, and general. [30] Wheat, lumber, and general. [31] For orders.
[32] Lumber and canned goods. [33] Lumber, sugar, and canned goods. [34] Wool, frozen, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
January 21	Inapaquina [35]	United Fruit Co	Colon, R. P.	January 20	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
January 21	Anachucuna [35]	United Fruit Co	Colon, R. P.	January 21	Heredia	United Fruit Co	New Orleans via wayports.
January 22	Stuyvesant	Royal Netherlands S. S. Co.	Hamburg via wayports.	January 21	Anachucuna [35]	United Fruit Co	Colon, R. P.
January 23	Granada	Standard Fruit & S. S. Co	New Orleans, La.	January 21	Inapaquina [35]	United Fruit Co	Colon, R. P.
January 23	Santa Marta	United Fruit Co	New York via Kingston.	January 23	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
January 23	Suriname	United Fruit Co	New Orleans, La.	January 23	Mandeville	United Fruit Co	Perme, R. P.
January 23	Ijsseldijk	Hamburg-American Line	Hamburg, Germany.	January 24	Suriname	United Fruit Co	Pto. Colombia via Bocas.
January 24	Inapaquina [35]	United Fruit Co	Colon, R. P.	January 24	Santa Marta	United Fruit Co	Colombian ports.
January 24	Toloa	United Fruit Co	New York via wayports.	January 24	Inapaquina [35]	United Fruit Co	Colon, R. P.
January 24	Magdalena	Hamburg-American Line	Hamburg, Germany.	January 25	Stuyvesant	Royal Netherlands S. S. Co	Curacao and Pto. Colombia.
January 24	Flandre	French Line	Havre via wayports.				
January 25	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	January 25	Antillian	Leyland Line	Curacao and Aruba.
January 25	Coppename	United Fruit Co	Bocas del Toro, R. P.	January 25	Granada	Standard Fruit & S. S. Co	New Orleans and Puerto Cabezas.
January 25	Anachucuna [35]	United Fruit Co	Colon, R. P.				
January 26	Mandeville	United Fruit Co	Perme, R. P.	January 25	Coppename	United Fruit Co	New Orleans, La.
January 26	Duchess of Bedford	Canadian-Pacific S. S. Co	New York, N. Y.	January 25	Toloa	United Fruit Co	New York via wayports.
January 26	Kungsholm	Swedish-American Line	New York, N. Y.	January 25	Ijsseldijk	Hamburg-American Line	Port Limon, Costa Rica.
January 26	Linda S. [36]	Surgeon Brothers	Colon, R. P.	January 25	Anachucuna [35]	United Fruit Co	Colon, R. P.
January 26	Cartago	United Fruit Co	New Orleans via Habana.	January 26	Flandre	French Line	Havre via wayports.
				January 26	Linda S. [36]	Surgeon Brothers	Bluefields, Nicaragua.
				January 26	Mandeville	United Fruit Co	Mobile, Ala.
				January 26	Magdalena	Hamburg-American Line	Cartagena, Colombia.

[35] Motor boat. [36] Motor schooner.

PORT OF BALBOA.

January 21	San Luis [37]	Chiriqui Land Co	Pto. Armuelles, R. P.	January 22	San Luis [37]	Chiriqui Land Co	Pto. Armuelles, R. P.
January 23	Lippe	North German Lloyd	San Antonio, Chile.	January 23	Lippe	North German Lloyd	Puntarenas, C. R.
January 24	Lagarto [38]	Pacific Steam Navigation Co.	High seas.	January 24	Dos Hermanos [37]	A. Valdez	Panama Bay, R. P.
January 24	Robert E. Hopkins	Associated Oil Co	Los Angeles, Calif.	January 24	A. B. de Obarrio [37]	Pacific Fruit Co	Panama Bay, R. P.
January 25	Dos Hermanos [37]	A. Valdez	Bayano River, R. P.	January 25	El Colon [37]	H. Elliot	Panama Bay, R. P.
January 25	A. B. de Obarrio [37]	Pacific Fruit Co	Bayano River, R. P.	January 25	Big Bill [38]	H. Elliot	Panama Bay, R. P.
January 25	Big Bill [38]	H. Elliot	Darien, R. P.	January 26	Robert E. Hopkins	Associated Oil Co	Los Angeles, Calif.
January 25	El Colon [37]	H. Elliot	Darien, R. P.				

[37] Motor schooner. [38] Motor ship. * Other than ships passing through the Canal.

Cargo Through Canal During December, 1928.

On pages 374 and 375 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in December, 1928. This cargo, segregated according to direction, as compared with December, 1927, and the differences, is shown in the following tabulation:

	December, 1928.	December, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Atlantic to Pacific	867,504	676,601	+190,903
Pacific to Atlantic	1,847,483	1,897,227	−49,744
Totals	2,714,987	2,573,828	+141,159

As will be noted above, tonnage from the Atlantic to the Pacific increased 190,903 tons over that in December, 1927, while that from the Pacific to the Atlantic showed a decrease of 49,744 tons, or a net increase in combined traffic over December, 1927, of 141,159 tons. Total cargo passing through the Canal in the past month is the second heaviest month since the opening of the Canal, falling short by 2,659 tons of the record month (October, 1927). This represents a general increase in the movement of practically all the more important items of cargo, with the exception of mineral oils, which decreased heavily under December, 1927.

ATLANTIC-TO-PACIFIC CARGO MOVEMENT.

Origin.—Sixty-five per cent of the cargo moving from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 22.5 per cent in Europe. Cargo originating in the United States was 122,135 tons, or 27.6 per cent, greater than the amount coming from that area in December, 1927, although the percentage of the total cargo was approximately the same as in December, 1927. Cargo from Europe increased 20,884 tons, or 12.1 per cent, over that originating in Europe in December, 1927, although the percentage of the whole was somewhat lower than in December of last year.

Destination.—Over 40 per cent of the Pacific-bound cargo was destined to the United States; 24.5 per cent to Asia; 14.8 per cent to Australasia; and 12.6 per cent to South America. Tonnage to all of these regions showed actual increases in the amounts of 87,433 tons, or 33.6 per cent; 62,129 tons, or 41.1 per cent; 14,031 tons, or 12.4 per cent; and 14,180 tons, or 14.8 per cent, respectively, over December of last year. The percentage of the total to South America and Australasia, however, was lower in December, 1928, than in December, 1927.

PACIFIC-TO-ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 42.7 per cent originated on the west coast of the United States; 34.7 per cent in South America; 16.7 per cent in Canada; 3.1 per cent in Asia; and 2.5 per cent in Australasia. Cargo from the United States showed an actual decrease of 212,046, or 21.2 per cent, under December, 1927, and the percentage of the total cargo dropped from 52.9 per cent in December, 1927, to 42.7 per cent in December, 1928. Cargo tonnage from South America increased 144,735 tons, or 29.1 per cent, over December, 1927.

The percentage of the total cargo shipped from South America also showed a large increase over December, 1927. Cargo from Canada, Asia, and Australasia, showed increases of 3,304 tons, 12,745 tons, and 1,226 tons, respectively, over December, 1927. A notable feature of the cargo coming from the Pacific in December, 1928, as compared with December, 1927, was the heavy increase of tonnage from South America, and the large decrease in the tonnage from the west coast of the United States. Heavy shipments of nitrates, ores, and mineral oils were largely responsible for the increase of tonnage from South America. Nitrates totaled more than 300,000 tons, the greatest amount of this commodity to have passed through the Canal in one month. Decreased tonnage from the United States was caused by a general decline in shipments of grains and mineral oils.

Destination.—Segregated according to destination, 46.8 per cent of the cargo in this direction went to the United States, and 48.4 per cent to Europe. Tonnage to the United States showed an increase of 13,503 tons, over December, 1927, as well as a small relative increase, while that to Europe decreased 13,364 tons.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 91 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 9 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific bound commodities which aggregated more than 10,000 tons for December, 1928, or December, 1927, are listed in the following tabulation, showing differences:

Commodity.	December, 1928.	December, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Automobiles	24,086	11,825	+12,261
Cement	39,861	19,558	+20,303
Coal and coke	5,150	15,097	−9,947
Cotton	58,179	30,982	+27,197
Manufactured goods:			
Iron and steel	210,047	122,504	+87,543
Machinery	15,778	19,947	−4,169
Railroad materials	26,239	20,214	+6,025
Textiles	14,156	9,236	+4,920
Miscellaneous	14,994	47,387	−32,393
Metals, various	24,347	5,538	+18,809
Oils, mineral	48,900	66,738	−17,838
Paper	20,107	16,885	+3,222
Phosphates	37,513	9,397	+28,116
Sugar	36,708	2,433	+34,275
Sulphur	29,655	39,364	−9,709
Tobacco	13,382	4,160	+9,222

The above 16 commodity groups comprise over 71 per cent of the cargo moving from the Atlantic to the Pacific during December, 1928. It will be noted that 11 of these items show increases while 5 show decreases. The heaviest increases were in iron and steel, sugar, phosphates, and cotton.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 99 per cent of all cargo moving from the Pacific to the Atlantic during the month of December, 1928. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	December, 1928.	December, 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Barley	8,008	6,134	+1,874
Beans	16,800	11,253	+5,547
Canned goods (fish, fruit, vegetables, etc.)	87,760	78,106	+9,654
Coffee	9,707	8,540	+1,167
Cold storage (food products) [1]	24,855	14,598	+10,257
Copra	9,513	11,159	−1,646
Cotton	14,357	8,609	+5,748
Fruit, dried	35,655	29,127	+6,528
Fruit, fresh	22,483	9,662	+12,821
Lumber	244,862	233,962	+10,900
Metals, various	65,923	62,503	+3,420
Nitrates	315,699	237,270	+78,429
Oils, mineral	345,322	511,721	−166,399
Ores, various	170,098	127,662	+42,436
Rice	12,598	1,491	+11,107
Sugar	50,253	25,956	+24,297
Wheat	300,560	393,426	−92,866

[1] Does not include fresh fruit.

The above 17 commodity groups comprise almost 94 per cent of the cargo moving from the Pacific to the Atlantic during December, 1928. Mineral oils and wheat decreased heavily while all the rest of the commodities moving in this direction, with the exception of copra, showed increases. Nitrates and ores registered the heaviest increases.

(**Continued on page 374.**)

First Pulverized Coal Burner to Transit Canal.

The British steamer *Hororata*, a vessel of 11,000 gross tons, owned and operated by the New Zealand Shipping Company, transited the Canal on January 17, 1929, en route from London to New Zealand, via Norfolk, Va. The *Hororata* has recently had her boiler furnaces partly converted to burn pulverized coal, the three single-ended boilers in her forward stokehold having been fitted each with four burners for that purpose. She is the first pulverized coal burner to transit the Panama Canal.

The burner used is of the triple-flow type. The pulverized coal is projected into the furnace between two bodies of primary air, while secondary air is supplied by a heater, a patented device enabling the furnace front to be arranged with an inner chamber in which the secondary air is heated to a high temperature and mixed with primary air in such a way as to give rapid and complete combustion. In fitting this burner to an existing boiler little alteration of the original construction is required. Reversion to hand-firing can be effected in an hour or two if required.

After being crushed, the coal is taken by a conveyor to a bin which holds enough for a day's consumption and supplies three pulverizers. The blowing plant consists of three fans, and in connection with each of these there are four separate distributors to the four burners of each boiler. The crushers and the conveyors are driven by electric motors and the pulverizers and fans by small steam turbines, but these pulverizing arrangements are not definitive, and changes are in view to reduce both the cost and space occupied.

The *Hororata* has been engaged in the London-New Zealand trade, via the Panama Canal, since 1923.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending January 26, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cristobal	Panama R. R. S. S. Line		January 20		1,906
Legazpi	Spanish Line		January 20		344
San Jose	United Fruit Co	January 20	January 20	11¼	236
Baarn	Royal Netherlands S. S. Co	January 20	January 21	261	122½
Bucnos Aires	Spanish Line	January 20	January 21	195	(3)
San Francisco	Hamburg-American Line	January 20	January 22	6	366
Durazzo	Hamburg-American Line	January 20	January 24	767	1,680
Venezuela	Panama Mail S. S. Co		January 21		671
Heredia	United Fruit Co		January 21		86
Lagarto	Pacific Steam Navigation Co	January 21	January 22	(2)	39
Saale	Hamburg-American Line	January 21	January 22	(2)	222
Mayari	United Fruit Co	January 21	January 22	(2)	967
Bennekom	Royal Netherlands S. S. Co	January 21	January 22	461	66
Santa Cecelia	Grace Line	January 21	January 22	63	(3)
Acajutla	Pacific Steam Navigation Co		January 22		1,104½
Ucayali	Peruvian Line		January 22		252
Levant Arrow	Standard Oil Co. of New York	January 22	January 23	352	(3)
Edward L. Doheny	Huasteca Petroleum Co	January 22	January 25	9,506	(3)
Walter Luckenbach	Luckenbach Line	January 22	January 23	12	(3)
Stuyvesant	Royal Netherlands S. S. Co	January 22	January 25	41	794
Teno	Chilean Line	January 23	January 23	(2)	141
Wanks	Standard Fruit & S. S. Corp		January 23		1
Isis	Hamburg-American Line	January 23	January 24	402	42
Santa Marta	United Fruit Co	January 23	January 24	1,051	209
El Salvador	Panama Mail S. S. Co	January 23	January 24	1,507	415
Suriname	United Fruit Co	January 23	January 24	1,112	196
Limon	United Fruit Co	January 23	January 25	1,450	51
Drechtdijk	Holland-American Line	January 23	January 24	106	315
Counsellor	Harrison Line	January 23	January 24	678	(3)
Ijsseldijk	Hamburg-American Line	January 23	January 25	319	486
Granada	Standard Fruit & S. S. Corp	January 23	January 25	401	520
Caldas	National Navigation Co	January 23	January 26	283	266
Hague Maru	Osaka Shosen Kaisha	January 24	January 24	126	(3)
Santa Barbara	Grace Line	January 24	January 24	(1)	5
El Ciervo	Anglo-Saxon Petroleum Co	January 24	January 25	551	(3)
Radnorshire	Royal Mail S. P. Co	January 24	January 25	(1)	572
Toloa	United Fruit Co	January 24	January 25	1,436	190
Gracia	Donaldson Line	January 24	January 26	(1)	315
Magdalena	Hamburg-American Line	January 24	January 26	365	1,726
Flandre	French Line	January 24	January 26	358	333
Coppename	United Fruit Co	January 25	January 25	51	109
Antillian	Leyland Line		January 25		2,247
Taormina	Italian Line	January 25	January 26	385	(3)
Impero	Italian-Chilean Commercial Line	January 25	January 26	68	(3)
Wanks	Standard Fruit & S. S. Corp	January 25		70	
Cartago	United Fruit Co	January 26		583	
Mandeville	United Fruit Co	January 26	January 26	(1)	108
Linda S.	R. Feuillebois	January 26	January 26	(1)	40
Manizales	North German Lloyd	January 26		775	
Georgie	French Line	January 26		309	
Port Wellington	Commonwealth & Dominion Line	January 26		75	
Uribe	Estrada G. Hermanos		January 26		631

[1] No cargo discharged. [2] One case. [3] No cargo laded.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, December, 1928.

—Continued from page 372.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America.[1]	Balboa, C. Z.[2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	Australia.	New Zealand.	Australasia.[1]	Total, Australasia.		
North America:																								
United States—																								
N. Atlantic ports	12,585	3,453	727	5,305	7,699	29,769	199,697	864	1,789	....	81	4,296	206,727	19,634	24,032	16,089	22,091	81,837	33,120	10,092	....	43,212	361,545	41.6
S. Atlantic ports	....	....	....	700	....	700	3,123	610	....	....	....	....	3,733	....	40	....	5,700	5,740	....	....	....	....	10,173	1.2
Gulf ports	2,914	224	71	927	....	4,136	52,745	6,491	1,376	....	2,470	....	63,082	92,513	982	6,469	11,357	111,321	6,629	6,914	....	13,543	192,082	22.1
Totals, U. S.	15,499	3,677	798	6,932	7,699	34,605	255,565	7,965	3,165	....	2,551	4,296	273,542	112,147	25,054	22,549	39,148	198,898	39,749	17,006	....	56,755	563,800	64.9
Cristobal, C. Z.[2]	1,897	2,848	1,029	988	1,646	8,409	2,921	....	7,032	....	....	....	9,953	....	....	....	....	....	....	....	56	56	18,418	2.1
E. coast of Canada	....	....	....	....	....	....	4,497	13,241	....	....	....	....	17,738	....	....	....	....	....	4,901	6,371	1,900	13,172	30,910	3.6
West Indies	5	....	....	....	....	5	21,975	90	....	....	....	....	22,065	....	14,217	....	....	14,217	....	....	....	....	36,287	4.2
E. coast of Mexico and Cen. America	....	....	....	....	....	....	2,499	24	975	....	....	....	3,498	....	....	....	....	....	5,225	....	....	5,225	8,723	1.0
Totals, N. Amer	17,401	6,526	1,827	7,920	9,345	43,019	287,457	21,320	11,172	....	2,551	4,296	326,796	112,147	39,271	22,549	39,148	213,115	49,875	23,377	1,956	75,208	658,138	75 8
Europe:																								
British Isles	6,577	127	803	2,561	3,420	13,488	4,801	3,584	11,485	....	....	....	19,870	....	....	....	....	....	....	41,620	1,277	42,897	76,255	8.8
Belgium	6,042	1,142	1,170	4,346	1,765	14,465	18,439	3,985	....	....	....	....	22,424	....	....	....	....	....	....	....	....	....	36,889	4.4
Denmark	....	....	....	....	....	....	133	....	....	....	....	....	133	....	....	....	....	....	....	....	....	....	133	....
France	695	....	10	200	456	1,361	4,747	581	....	....	....	....	5,328	....	....	....	....	....	....	....	1,764	1,764	8,453	0.9
Germany	1,688	417	258	1,929	328	4,611	9,551	358	....	....	656	....	10,565	....	....	....	....	....	....	....	....	....	15,176	1.7
Holland	311	....	5	204	30	550	5,971	595	....	....	....	....	6,566	....	....	....	....	....	....	....	....	....	7,116	0.8
Italy	2,517	....	80	563	63	3,223	525	1,347	9	....	....	....	1,881	....	....	....	....	....	....	....	....	....	5,104	0.6
Norway and Sweden	2,759	1,532	....	187	3,853	8,331	3,754	47	1,951	....	1,251	....	7,003	....	....	....	....	....	....	....	....	....	15,334	1.8
Spain and Portugal	197	....	4	120	197	518	13	....	6	....	....	....	19	....	....	....	....	....	....	....	....	....	537	0.1
Europe[3]	1,499	797	269	3,282	14,089	19,936	5,450	393	3,693	....	42	....	9,578	....	....	....	....	....	....	....	....	....	29,514	3.4
Totals, Europe	22,285	4,015	2,599	13,383	24,201	66,483	53,384	10,890	17,144	....	1,949	....	83,367	....	....	....	....	....	....	41,620	3,041	44,661	194,511	22.5
E. coast of S. America	4	136	....	....	159	299	6,720	136	....	....	....	....	6,856	....	....	....	....	....	....	....	....	....	7,155	0.8
Africa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7,700	....	7,700	7,700	0.9
Grand totals	39,690	10,677	4,426	21,303	33,705	109,801	347,561	32,346	28,316	....	4,500	4,296	417,019	112,147	39,271	22,549	39,148	213,115	49,875	72,697	4,997	127,569	867,504	100.0
Per cent of total cargo:																								
December, 1928	4.6	1.2	0.5	2.4	3.9	12.6	40.1	3.7	3.3	....	0.5	0.5	48.1	12.9	4.5	2.6	4.5	24.5	5.8	8.4	0.6	14.8	....	100.0
December, 1927	5.6	1.4	0.5	2.5	4.1	14 1	38 5	3.8	3 1	....	0.9	0.5	46.8	14.9	3.1	2.1	2.2	22.3	9.0	7.4	0.4	16.8	....	100.0
December, 1926	3.8	2 2	0 8	2 1	3 6	12.5	39.0	3 8	1.5	0 4	0.9	....	45.6	13.5	3.4	1.9	3.7	22 5	8.7	9.5	1.2	19.4	....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, December, 1928.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.													Grand totals.	Per cent of total cargo.
	United States.																							
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	East coast of Central America.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.[1]	Total, Europe.	East coast of South America.	Africa.		
South America:																								
Chile	188,444	31,163	19,227	238,834			811	208	239,853	21,885	6,174	4	8,304	10,434	6,516	3,628	115	7,971	210,594	275,625			515,478	27.8
Colombia								3,913	3,913		10									10			3,923	0.2
Ecuador	657		7,769	8,426				1,684	10,110		25		141	25		315		109	220	835			10,945	0.6
Peru	35,253			35,253	19,179			5,074	59,506	31,333	1,721	664		11,828	307	70			1,096	47,019			106,525	5.8
W. coast of S. America [1]	61			61					61	3,630			780						349	4,759			4,820	0.3
Totals, S. America	224,415	31,163	26,996	282,574	19,179		811	10,879	313,443	56,848	7,930	668	9,225	22,287	6,823	4,013	115	8,080	212,259	328,248			641,691	34.7
North America:																								
West coast of Canada	25,407		135	25,542	137	1,609	460	288	28,036	115,888	22,999	2,087	9,791	13,319	35,953	18,955	3,192	18,145	35,793	276,122	1,146	3,404	308,708	16.7
W. coast Cen. America	50			50			140	3,517	3,707					580	70				602	1,252			4,959	0.3
W. coast United States	442,214	17,306	49,009	508,529		10,950	9,539	12,632	541,650	130,783	5,745	507	7,908	40,833	14,950	6,410	1,685	7,969	26,843	243,633	1,833	2,740	789,856	42.7
Hawaii	77			77					77														77	
Totals, N. America	467,748	17,306	49,144	534,198	137	12,559	10,139	16,437	573,470	246,671	28,744	2,594	17,699	54,732	50,973	25,365	4,877	26,114	63,238	521,007	2,979	6,144	1,103,600	59.7
Asia:																								
China	6,941		104	7,045				742	7,787														7,787	0.4
Japan	2,480			2,480				6	2,486														2,486	0.1
Philippines	15,377	11,762		27,139					27,139														27,139	1.5
Far East [2]	3,076			3,676		7,515			10,591	3,000									6,038	9,038			19,629	1.1
Totals, Asia	27,874	11,762	104	39,740		7,515		748	48,003	3,000									6,038	9,038			57,041	3.1
Australasia:																								
Australia	7,698			7,698	429				8,127														8,127	0.4
New Zealand					142			5	147	30,147										30,147			30,294	1.7
Australasia [1]	940			940					940	5,790										5,790			6,730	0.4
Totals, Australasia	8,638			8,638	571			5	9,214	35,937										35,937			45,151	2.5
Grand totals	728,675	60,231	76,244	865,150	19,887	20,885	10,139	28,069	944,130	342,456	36,674	3,262	26,924	77,019	57,796	29,378	4,992	34,194	281,535	894,230	2,979	6,144	1,847,483	100.0
Per cent of total cargo:																								
December, 1928	39.4	3.3	4.1	46.8	1.1	1.1	0.5	1.6	51.1	18.5	2.0	0.2	1.5	4.2	3.1	1.6	0.3	1.8	15.2	48.4	0.2	0.3		100.0
December, 1927	38.6	2.8	3.4	44.8	1.3	1.8	0.1	3.0	51.0	17.2	0.8	0.4	2.1	2.6	3.7	3.3	0.8	1.0	16.0	47.9	1.1			100.0
December, 1926	57.1	1.4	1.4	59.9	3.9	0.6	0.1	1.8	66.3	13.1	1.6	0.2	1.3	1.2	0.6	0.9		0.2	14.5	33.6	0.1			100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Publication of Notices and Circulars of Interest to Shipping

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

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Traffic Through the Panama Canal in January, 1929—New High Records.

During the month of January, 1929, 603 commercial vessels and 7 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,502,815.12, and on the launches $81 or a total tolls collection of $2,502,896.12.

The daily average number of commercial transits for the month was 19.45, and the average tolls collection, $80,735.97. The average amount of tolls paid by each of the commercial transits was $4,150.61, as compared with $4,219.39 for the month of December, 1928.

The total number of commercial transits in January establishes a new high record for a month, exceeding by 14 the previous record of 589 commercial transits made in December, 1927. The tolls collected from the commercial transits, amounting to $2,502,815.12, exceed by almost $60,000 the previous record of $2,443,029.39, collected from commercial traffic during the month of December, 1928.

In addition to the commercial traffic transiting the Canal during the past month there were 121 transits of vessels of the United States Government, 2 transits of a Panaman Government vessel, and 3 transits of vessels solely for repairs, on which no tolls were collected, making a total of 736 vessels of all kinds transiting the Canal during the month, or a daily average for all traffic of 23.74 vessels. The majority of the United States Government vessels were units of the Scouting Fleet transiting from Atlantic to Pacific to participate in the fleet maneuvers in or beyond the Gulf of Panama.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 7 months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 7 months of the fiscal years 1928 and 1927:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January	603	2,502,815.12	19.45	80,735.97
Totals, first 7 months of fiscal year 1929	3,788	15,866,110.35	17.62	73,795.86
Totals, first 7 months of fiscal year 1928	3,847	16,144,585.09	17.89	75,091.32
Totals, first 7 months of fiscal year 1927	3,140	13,914,400.47	14.60	64,718.14

In comparison with the first seven months of the fiscal year 1928, the corresponding period this year has had 59 fewer commercial transits and $278,474.74 less tolls, a decrease of between 1½ and 2 per cent.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 2, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Sunoil [1] [2]	26	7.55	27	6.20	27	20.57	27	22.16	American	Sun Oil Co.	480.0	66.0	22.0	Chester, Pa.	Los Angeles, Calif.	Ballast		9,610	6,396
West Notus	26	8.15	27	6.20	27	19.50	27	21.05	American	McCormick S. S. Co.	410.5	54.3	16.6	Buenos Aires, Arg.	Vancouver, B. C.	General	1,484	6,583	5,014
S. C. T. Dodd [1]	26	9.10	27	7.05	27	22.05	27	23.08	American	Tidewater Oil Co.	425.0	57.2	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,481	4,975
El Aleto [1] [2]	26	9.47	27	7.15	27	23.12	28	3.54	British	Imperial Oil Co., Ltd.	440.0	57.6	21.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,555	5,049
Buffalo Bridge	26	10.53	27	8.15	27	22.23	28	9.15	American	Charles Nelson & Co.	324.0	46.0	18.0	Baltimore, Md.	San Francisco, Cal.	General	2,700	3,985	2,630
Madras City	26	16.45	27	8.30	28	00.35	28	2.05	British	Reardon Smith Line.	383.0	53.6	13.4	Barry, England.	Vancouver, B. C.	Ballast		5,913	4,377
Canonesa	26	12.20	27	8.40	28	1.39	28	2.53	British	Furness Houlder Line.	450.0	57.5	15.0	Southampton, Eng.	Los Angeles, Calif.	Ballast		8,956	6,562
Mexican	26	14.20	27	10.05	28	2.41	28	3.54	American	Amer.-Hawaiian Line.	472.3	57.2	19.6	Boston, Mass.	Portland, Oreg.	General	3,814	9,258	6,944
Anglo-Canadian [3]	26	16.25	27	10.20	28	3.41	28	15.40	British	Nitrate Prod. S. S. Co.	426.0	58.0	22.0	Galveston, Texas	Melbourne, Aust'a.	Sulphur	7,000	7,680	5,680
Kersten Miles	27	00.45	27	11.45	28	5.43	28	23.15	German	G. J. H. Siemers & Co.	407.7	54.4	23.6	Houston, Texas.	Kobe, Japan	General	6,821	6,620	4,889
Ipswich	27	8.35	27	13.35	28	6.16	28	12.10	American	Argonaut S. S. Co.	400.7	54.2	24.6	Baltimore, Md.	Tacoma, Wash	Steel, general	6,920	6,616	4,614
Limon	27	9.25	27	15.03	28	00.42	28	2.05	American	United Fruit Co.	331.0	44.0	18.4	Port Limon, C. R.	San Francisco, Cal.	Bananas, general	545	3,675	2,229
Heffron	27	9.55	27	19.40	28	6.47	28	8.12	American	Norton, Lilly & Co.	440.0	56.0	23.0	New York, N. Y.	Everett, Wash.	Steel, general	6,135	8,312	6,097
Manizales	26	23.10	28	6.10	28	20.15	28	21.06	German	North German Lloyd	216.5	33.0	13.8	Cristobal, C. Z.	Guayaquil, Ecuador	General	392	1,132	741
Hilda [3]	25	19.35	28	6.20	28	19.00	29	14.10	American	Charles Bolt	172.0	27.0	14.0	Guantanamo, Cuba	Los Angeles, Calif.	Ballast		579	344
Westmoreland	27	20.25	28	7.00	28	19.15	28	20.25	British	Federal Steam Nav. Co.	473.0	60.0	28.5	London, England.	Auckland, N. Z.	General	6,866	10,423	7,456
Hofuku Maru	28	2.10	28	8.35	28	20.23	28	21.51	Japanese	Kokusai Kisen Kaisha.	385.0	51.0	28.0	Norfolk, Va.	Yokohama, Japan	Steel, tobacco	5,654	6,212	4,710
Orinoco	28	4.45	28	9.45	28	21.20	28	22.48	American	Quaker Line	376.0	52.3	18.0	Newport News, Va.	Los Angeles, Calif.	General	3,486	5,455	3,902
Editor	28	5.05	28	13.14	28	22.28	28	23.43	American	Roosevelt S. S. Co., S. B.	402.0	54.6	24.3	Philadelphia, Pa.	Adelaide, Australia	General	3,447	6,934	5,102
Bridge [4]	28	22.50	29	8.15	29	18.09			American	U. S. Navy	400.0	55.0		Norfolk, Va.	Balboa, C. Z.	Naval supplies			
Grootendijk	28	16.33	29	9.30	29	19.25	28	20.55	Dutch	Holland-American Line.	450.0	58.0	21.0	Antwerp, Belgium	Vancouver, B. C.	General	2,600	8,730	5,860
Commercial Trader	29	5.10	29	11.00	29	20.31	29	21.50	American	Moore & McCormack	400.0	51.0	17.0	New York, N. Y.	Valparaiso, Chile	General	970	6,199	4,455
Texas	29	6.10	29	12.25	29	21.25	29	22.15	French	French Line	409.0	53.0	22.8	Havre, France.	Vancouver, B. C.	General	3,542	6,824	4,885
President Garfield	29	12.50	29	13.35	29	22.40	30	6.33	American	Dollar Line	502.0	62.2	28.0	New York, N. Y.	San Francisco, Cal.	General	5,875	12,057	8,509
Losada [2]	28	18.05	29	15.11	29	23.31	30	13.05	British	Pacific Steam Nav. Co.	406.0	54.0	17.3	Hull, England	Valparaiso, Chile	General	2,928	7,221	4,844
Fernmoor [2]	29	13.10	29	16.10	30	18.34	30	19.28	Norwegian	Fern Line	381.0	53.0	24.0	Tampa, Fla.	Yokohama, Japan	General	6,800	6,291	4,530
New Jersey	29	23.10	30	7.45	30	19.32	30	21.15	American	The Texas Co.	417.0	57.0	21.0	Norfolk, Va.	Los Angeles, Calif.	Ballast		7,130	5,249
Paul Luckenbach	30	3.15	30	8.45	30	20.39	30	22.16	American	Luckenbach Line	471.0	59.6	21.11	Boston, Mass.	Seattle, Wash.	General	4,468	9,027	6,539
Knockfierna	30	9.00	30	11.05	30	21.34	30	23.15	British	Andrew Weir & Co.	400.0	52.0	14.0	Oran, Algeria	Taltal, Chile	Ballast		5,828	4,095
Solana [1]	30	11.30	30	12.00	30	22.42	31	00.08	American	Tidewater Oil Co.	419.5	56.6	22.0	Bayonne, N. J.	San Francisco, Cal.	Ballast		7,060	5,025
Rhodopis	29	22.45	31	6.07	31	15.10	31	16.05	German	Hamburg-American Line	435.0	53.2	24.6	Hamburg, Germany	Valparaiso, Chile	General	4,017	7,525	5,154
Cali	28	23.30	31	6.22	31	16.34	31	17.45	German	North German Lloyd	216.5	32.9	14.7	Cristobal, C. Z.	Buenaventura, Col.	General	103	1,105	698
Puritas [2]	30	20.35	31	6.35	31	16.28	31	21.20	Italian	Industria Armamento.	385.7	51.7	18.0	Genoa, Italy	Vancouver, B. C.	Ballast		5,759	4,013
Indianola	30	20.45	31	7.30	31	17.41	31	19.00	British	Andrew Weir & Co.	390.0	52.1	23.9	Antwerp, Belgium	Auckland, N. Z.	Basic slag	7,105	6,024	4,482

[1] Tanker. [2] Motor ship. [3] Yacht. [4] Supply ship.

Sagoland	30	22.03	31	7.30	31	18.49	31	20.45	Swedish	Canadian Grain Co	430.2	54.3	15.0	Sunderland, Eng.	Vancouver, B. C.	Ballast		6,840	5,014
Lica Maersk	30	23.40	31	9.00	31	18.44	2-1	00.13	Danish	A. P. Moller	308.7	43.9	20.0	New York, N. Y.	Manila, Philippines	General	3,750	3,361	2,562
Braddovey	31	11.07	31	12.35	31	23.45	1-31	22.00	British	Sir. W. R. Smith & Sons	340.0	48.0	22.2	Galveston, Texas	Newcastle, N. S. W.	Sulphur	4,900	3,873	2,749
San Ubaldo [1]	31	14.55	31	15.15	31	23.25	2-1	3.05	British	Anglo-Mex. Pet. Co	412.0	54.0	20.0	London, England	Los Angeles, Calif.	Ballast		5,976	4,069
Sciota [5]			31	6.00	31	17.38			American	U. S. Navy	149.3	30.0		Cristobal, C. Z.	Balboa, C. Z.		(7)		
King Lud [2]	31	18.30	2-1	7.10	2-1	18.05	2	1.10	British	Texas Oil Co	400.0	56.4	24.0	Port Arthur, Texas	Sydney, Australia	Case oil	7,098	6,279	4,336
Dakotan	2-1	2.45	1	7.45	1	19.04	1	19.58	American	Amer.-Hawaiian Line	407.7	53.7	21.0	Boston, Mass.	Seattle, Wash.	General	4,218	7,156	5,094
S-3 [6]			1	8.00	1	20.00			American	U. S. Navy	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.				
Canada [3]	1	10.25	1	10.45	1	20.27	2	23.04	Swedish	Johnson Line	440.0	55.0	25.6	Stockholm, Sweden	San Francisco, Cal.	(8)	7,449	7,476	5,485
Francis E. Powell [1]	1	10.30	1	10.55	1	21.12	1	23.21	American	Atlantic Refining Co	431.0	59.0	20.0	Fall River, Mass.	Los Angeles, Calif.	Ballast		7,869	5,101
Simonburn	1	12.50	1	13.10	1	22.25	1	23.55	British	Common Brothers	390.0	53.5	17.0	Algiers, Algeria	Vancouver, B. C.	Ballast		5,625	4,158
Ebro	1	3.20	2	6.05	2	13.38	2	15.30	British	Pacific Steam Nav. Co	450.0	56.0	25.0	New York, N. Y.	Talcahuano, Chile	General	3,428½	9,291	6,301
Arana	1-31	10.23	2	6.11	2	14.27	3	15.40	British	Pacific Steam Nav. Co	303.0	43.0	18.0	New York, N. Y.	Callao, Peru	General	2,023½	2,851	1,776
Borga [2]	2-1	17.30	2	6.30	2	14.27			Norwegian	Norway-Pacific Line	362.4	51.4	22.6	Oslo, Norway	Vancouver, B. C.	General	4,588	5,242	3,706
San Zotico [4]	1	22.35	2	7.40	2	16.53	2	20.00	British	Eagle Oil Transport Co	400.2	52.0	26.4	Curacao, D. W. I.	Iquique, Chile	Fuel oil	7,634	6,032	3,892
Brighton	1	23.10	2	7.45	2	18.03	2	19.15	British	Stewart Grain Corp.	409.0	54.0	16.7	Algiers, Algeria	Vancouver, B. C.	Ballast		5,729	4,102
Newbrough [1]	2	00.40	2	8.50	2	19.17	2	20.50	British	Common Brothers	390.0	56.8	15.10	Venice, Italy	Vancouver, B. C.	Ballast		5,766	4,286
Plow City	2	7.00	2	8.45	2	18.19	2	20.00	American	Charles Nelson & Co	324.0	46.2	21.6	Baltimore, Md.	Seattle, Wash.	General	3,760		
Anglo-Colombian	2	13.25	2	13.40	2	21.15	2	22.20	British	Lawther, Latta & Co	479.0	62.0	27.0	Galveston, Texas	Adelaide, Australia	Sulphur	10,052	9,463	6,757
Wiegani	1	8.55	2	14.21	2	22.22	2	23.53	German	Roland Line	393.0	54.4	25.6	Hamburg, Germany	San Antonio, Chile	General	5,635	6,573	4,329
Papanui	2	14.30	2	15.05	2	23.45	3	1.00	British	Federal Steam Nav. Co	469.8	58.0	23.0	New York, N. Y.	Fremantle, Austr'a	General	5,615	8,772	6,457
Port Antonio	1-30	18.55	2	16.04	2	23.55	3	1.00	Norwegian	United Fruit Co	230.0	36.0	17.0	Charleston, S. C.	Puntarenas, C. R.	General	850		

[1] Tanker. [3] Tug. [6] Submarine. [7] Towing barge. [8] Cement, paper, pulp, and iron.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

W. S. Rheem [1]	25	13.25	27	5.00	27	13.47	27	13.47	American	Standard Oil Co. of Cal.	500.0	68.2	28.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	14,000	11,224	7,895
Slemmestad [2]	25	19.15	27	6.10	27	14.20	27	14.20	Norwegian	Fern Line	376.5	53.8	25.0	Vladivostok, Sib'a	Europe	Soya beans	7,040	6,256	4,163
Absaroka	26	9.00	27	7.22	27	15.45	27	15.45	American	McCormick S. S. Co	400.5	54.1	25.0	Portland, Oreg.	Baltimore, Md.	Lumber, general	7,377	6,627	4,993
Asuka Maru [2]	26	00.45	27	8.34	27	17.16	27	23.20	Japanese	Nippon Yusen Kaisha	440.4	57.0	27.0	Manila, P. I.	New York, N. Y.	(10)	10,606	8,139	5,389
Orient	26	5.00	27	9.37	27	18.00	27	19.50	American	Oriental Navigation Co	376.4	52.3	24.3	Aberdeen, Wash.	Wilmington, Del.	Lumber	5,557	5,455	3,879
Oakbank [2]	26	5.30	27	10.36	27	19.10	27	21.10	British	Andrew Weir & Co	420.3	53.9	26.9	Antofagasta, Chile	Mobile, Ala.	Nitrates	8,400	7,098	5,017
Athel Prince [1 2]	26	23.00	27	12.32	27	19.30	28	6.20	British	British Molasses Co	471.2	62.4	27.6	Surabaya, Java	Baltimore, Md.	Molasses	12,030	9,359	6,287
Bianco [1 2]	27	1.00	27	12.40	27	21.10	27	21.10	Norwegian	Arthur H. Mathison	380.7	55.2	26.0	Los Angeles, Calif.	Land's End, Eng. [11]	Gasoline	7,810	5,951	3,921
Java Arrow [1]	26	19.40	27	15.12	27	22.55	27	22.55	American	Standard Oil Co. of N. Y.	468.3	62.7	28.9	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,367	10,084	7,388
Swan [5]			27	12.55	27	21.05			American	U. S. Navy	188.0	32.0		Balboa, C. Z.	Cristobal, C. Z.				
Svealand [2]	27	13.35	28	6.21	28	14.35	28	14.35	Swedish	Axel Brostrom & Son	569.1	72.2	34.0	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,564	15,425	4,421
Santa Maria [2]	27	15.35	28	6.58	28	14.12	28	21.35	American	Grace Line	466.0	64.0	26.6	Talcahuano, Chile	New York, N. Y.	(12)	5,270	10,626	6,680
Orazio [2]	27	22.29	28	8.29	28	16.10	29	18.15	Italian	Nav. Gen. Italiana	506.0	61.8	25.7	Talcahuano, Chile	Genoa, Italy	General	3,956	12,977	9,373
Florence Luckenbach	27	3.30	28	9.34	28	17.00	28	17.00	American	Luckenbach Line	401.9	52.2	25.0	Portland, Oreg.	Mobile, Ala.	General	6,629	6,002	4,621
Woodfield	27	10.10	28	10.05	28	19.15	28	20.05	British	Anglo-Chilean Ni'te Co	400.0	53.0	24.2	Tocopilla, Chile	Pensacola, Fla.	Nitrates	7,500	5,798	4,119
Edenton	27	16.20	28	11.32	28	21.05	28	21.05	American	Roosevelt S. S. Co., S. B.	409.6	54.2	24.0	Iloilo, P. I.	New York, N. Y.	Sugar, hemp, oil	8,023	7,478	5,906
Uganda	27	22.30	28	12.12	28	22.10	28	22.10	British	Wessel, Duval & Co	402.5	52.2	24.8	Iquique, Chile	Wilmington, N. C.	Nitrates	7,730	5,393	4,069
No. 314 [9]			28	12.32	28	20.05	28	21.45	American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 329 [9]			28	12.32	28	20.05	28	21.45	American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
Fort Armstrong	27	12.40	28	13.50	28	23.20	28	23.20	American	Charles Nelson & Co	324.0	46.2	22.6	Los Angeles, Calif.	Norfolk, Va.	Lumber, general	1,568	3,984	2,628
Van	28	8.30	28	13.53	29	00.30	29	2.40	Belgian	Wessel, Duval & Co	460.4	58.2	28.4	Iquique, Chile	Azores [11]	Nitrates	9,890	9,068	6,211

[1] Tanker. [9] Destroyer. [10] Oil, sugar, and general. [11] For orders. [12] Copper, nitrates, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Cali	28	12.00	28	14.14	28	23 30	31	6.22	German	North German Lloyd	216.5	32.9	14.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	840	1,105	698
Jane Christenson	28	9.10	28	21.55	29	8.55	29	8.55	American	Arrow Line	409.5	54.2	24.2	Portland, Oreg.	New York, N. Y.	Lumber	7,156	6,615	4,966
Canadian Constructor	28	11.15	28	23 01	29	9.55	29	20.00	British	Can. Nat. Steamships	430.0	56.2	18.0	Adelaide, Australia	Halifax, N. S.	General	2,438	7,680	5,494
Galveston			29	00.06	29	9 00	29	13.00	American	U. S. Navy	292.0	44.0		Balboa, C. Z.	Cristobal, C. Z.				
Northmoor [11]	28	17.30	29	00.20	29	10.12	29	10 12	British	Moor Line, Ltd	375.0	53.5	25.6	Vancouver, B. C.	Hull, England	Wheat	7,300	6,051	4,612
Chastine Maersk [13]	28	17.00	29	1.05	29	11 10	29	11 10	Danish	Isbrandtsen Moller Co	367.0	48.8	25.0	Pulupandan, P. I.	Baltimore, Md.	Sugar	7,365	5,526	4,066
Cragpool	28	22.00	29	1.42	29	12.20	29	14 25	British	Sir. R. Ropner & Co	420.1	54.1	24.6	Vancouver, B. C.	Rotterdam, Holland	Wheat	6,035	6,170	4,505
Meissonier	28	23.11	29	2.51	29	13.30	29	14.30	British	N. Pacific Coast Serv.	440.0	56.3	24.6	Vancouver, B. C.	Rotterdam, Holland	General	3,983	7,487	4,641
Solitaire [13]	28	21.00	29	6 55	29	14.35	30	12.37	American	The Texas Co	315.0	43.7	23.0	Los Angeles, Calif	Wilmington, Del.	([17])	4,185	3,469	2,528
No. 236 [14]			29	8 17	29	15 50	29	15 50	American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 290 [14]			29	8 17	29	15 50	29	15 50	American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 241 [14]			29	8.19	29	15 50	29	15.50	American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 247 [14]			29	8.19	29	15 50	29	15.50	American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
Alaska	29	8 45	29	9 55	29	18 00	29	23 00	Norwegian	Scand. So. Pacific Line	410.5	54.1	23.6	Iquique, Chile	Land's End, Eng. [18]	Nitrates	7,500	6,563	4,799
Suscolanco	29	9.10	29	10.16	29	19.25	29	20.15	American	Transmarine Lines	324.0	46.2	23.8	Aberdeen, Wash.	Philadelphia, Pa.	Lumber	4,300	3,984	2,612
Robert Luckenbach	29	10.15	29	11.16	29	19.50	29	19 50	American	Luckenbach Line	445.0	58.0	27.0	Portland, Oreg.	Boston, Mass.	Lumber, general	8,018	8,695	6,375
O-8 [15]			29	12.14	29	19 25			American	U. S. Navy				Balboa, C. Z.	Cristobal, C. Z.				
Warlaby	29	11 55	29	12.41	29	20.55	29	22 05	British	Sir. R. Ropner & Co	390.1	55.5	23.0	Vancouver, B. C.	United Kingdom	Wheat	7,778	5,908	4,257
Canadian Traveller	29	13.00	29	13.47	29	21.35	29	23.15	British	Can. Nat. Steamships	399.5	52.2	17.9	Melbourne, Aus'lia	Halifax, N. S.	([19])	1,400	5,984	4,193
Pacific Pine	29	13 15	29	14.09	29	23.20	29	23 20	American	Dimon S. S. Corp.	410.5	54.3	24.6	Aberdeen, Wash.	Baltimore, Md.	Lumber	7,400	6,583	4,808
Turpin	21	9.00	29	23.45	30	9 22	30	16.55	German	Roland Line	395.0	50.0	26.0	Corral, Chile	Hamburg, Germany	General	6,833	6,175	4,423
Denver [16]			29	23.50	30	9.10	30	12.25	American	U. S. Navy	292.0	44.0		Balboa, C. Z.	Cristobal, C. Z.				
Taranaki [13]	29	6.00	30	00.40	30	9.47	30	9 47	British	Shaw, Savill & Albion	483.0	64.2	26.6	Pt. Chalmers, N. Z.	London, England	Frozen, general	6,724	11,706	8,320
Volumnia	29	14 25	30	00.50	30	11 10	30	11 50	British	Can.-Amer. Ship. Co.	423.6	56.0	23.6	Vancouver, B. C.	Rotterdam, Holland	Lumber, wheat	7,860	6,229	4,524
Santa Isabel	29	20.45	30	1.00	30	11 17	30	16 00	American	Isthmian S. S. Lines	251.0	43.6	22.0	Portland, Oreg.	Baltimore, Md.	Lumber, general	2,534	2,823	1,740
Kentuckian	29	16.10	30	1.52	30	12 20	30	12 20	American	Amer.-Hawaiian Line	414.3	53.7	27.1	Portland, Oreg.	Boston, Mass.	General	6,072	7,049	4,941
San Mateo	30	2.35	30	3.57	30	12 55	31	16.23	American	United Fruit Co.	315.2	44.2	20.0	San Francisco, Cal.	Port Limon, C. R.	Coffee, general	1,023	3,496	2,141
Bohemian Club [1]	29	13.45	30	5.44	30	14.55	30	15 15	American	Atlantic Refining Co.	425.0	57.2	27.3	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,354	7,204	4,769
Siljestad [13]	30	2 50	30	6.15	30	15 05	30	16.50	Norwegian	Fern Line	376.5	53.8	25.8	Saigon, China	Santo Domingo	Rice	7,331	6,264	4,706
Heluan	30	6.45	30	8.15	30	17 15	30	23.50	German	Hamburg-American Line	441.1	52.8	26.4	Valparaiso, Chile	Hamburg, Germany	General	7,319	7,621	5,313
Mantaro	30	8 30	30	9.55	30	17.05	2–2	6 10	Peruvian	Peruvian Line	267.3	46.0	19.6	Callao, Peru	Cristobal, C. Z.	General	2,178	4,838	2,959
Nitro	29	19.30	30	10.34	30	20 00	1–30	22 25	Italian	Soc. Anon. Com. Italian	406.8	48.8	25.7	Tocopilla, Chile	Gibraltar [18]	Nitrates	7,150	5,742	4,180
Point Bonita	30	7.25	30	10 37	30	19 35	30	19.35	American	Gulf-Pacific Line	324 0	46.2	22.8	San Francisco, Cal.	New Orleans, La.	General	3,700	3,984	2,617

[1] Tanker. [13] Motorship. [14] Destroyer. [15] Submarine. [16] Cruiser. [17] Gasoline and packages. [18] For orders. [19] Wool, hides, and general.

Pacific Trader [11]	30	8.00	30	11.25	30	20.44	31	9.10	British	Furness, Withy & Co.	420.0	53.0	26.7	Vancouver, B. C.	Glasgow, Scotland	General	7,914	7,905	5,869
Joseph Seep [1]	30	10.15	30	12.24	30	21.40	30	21.40	American	Standard Shipping Co.	429.4	59.2	27.2	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,556	7,825	5,616
Orestes	30	11.45	30	14.43	30	23.40	2	15.50	Dutch	Royal Neth. S. S. Co.	347.6	48.2	18.0	Coquimbo, Chile	Hamburg, Germany	General	2,296	4,167	3,083
Valdirosa	30	11.40	30	15.04	31	00.50	31	2.15	Italian	Lloyd Mediterraneo	385.0	52.0	23.7	Mejillones, Chile	Azores [18]	Nitrates	7,538	5,363	4,149
Gen. Wm. M. Graham [20]			30	6.33	30	15.05			American	U. S. Army	160.2	32.0		Balboa, C. Z.	Cristobal, C. Z.				
Gen. G. W. Getty [21]			30		30	16.40			American	U. S. Army	98.0	22.0		Balboa, C. Z.	Cristobal, C. Z.				
Edward P. Nones [21]			30		30	16.40			American	U. S. Army				Balboa, C. Z.	Cristobal, C. Z.				
L–10 [22]			30		30	15.05			American	U. S. Army				Balboa, C. Z.	Cristobal, C. Z.				
J–10 [22]			30		30	15.05			American	U. S. Army				Balboa, C. Z.	Cristobal, C. Z.				
Sciota			30	9.05	30	19.40	31	6.00	American	U. S. Navy	155.0	30.0		Balboa, C. Z.	Cristobal, C. Z.	([23])			
L–55 [22]			30		30	16.40			American	U. S. Army				Balboa, C. Z.	Cristobal, C. Z.				
Suporteo	30	15.10	31	4.56	31	12.50	31	12.50	American	Transmarine Lines	324.0	46.2	24.0	Seattle, Wash.	Newark, N. J.	Lumber	3,971	3,984	2,612
Gracefield	30	19.00	31	5.00	31	12.10	31	12.10	British	E. J. Sutton & Co.	390.0	53.5	23.0	Prince Rupert, B.C.	Fayal, Azores [18]	Wheat	7,191	5,732	4,181
Jamaica	30	17.15	31	5.59	31	14.55	4	9.45	British	Pacific Steam Nav. Co.	220.0	34.0	12.9	Champerico, Guat	Cristobal, C. Z.	([24])	738	1,187	622
Lio [13]	30	20.50	31	6.33	31	14.35	31	14.35	American	Standard Shipping Co.	431.0	59.2	27.4	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,305	7,840	5,112
Leme [13]	30	8.45	31	7.43	31	16.55	31	16.55	Italian	Nav. Libera-Triestina	450.0	57.0	28.4	Vancouver, B. C.	Trieste, Italy	General	9,500	8,805	6,497
Hvoslef	30	17.45	31	7.51	31	15.45	1	4.45	Norwegian	United Fruit Co.	255.1	35.5	15.2	Puntarenas, C. R.	Cristobal, C. Z.	([25])	715½	1,680	892
Reedpool	30	23.00	31	8.47	31	17.30	31	18.30	British	Sir. R. Ropner & Co.	390.0	55.5	24.0	Vancouver, B. C.	Avonmouth, Eng.	Wheat	7,463	5,890	4,199
Nebraskan	31	3.00	31	9.32	31	18.35	31	18.35	American	Amer.-Hawaiian Line	471.1	59.1	27.0	Seattle, Wash.	Boston, Mass.	General	8,245	9,032	6,655
Los Angeles [1]	31	5.45	31	10.15	31	18.55	31	23.45	German	Hamburg-AmericanLine	432.2	59.4	26.3	Vancouver, B. C.	Hamburg, Germany	General	7,371	8,454	6,344
Baralt	31	10.15	31	11.13	31	19.55	3	6.10	Dutch	Royal Neth. S. S. Co.	202.9	33.1	12.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	690	1,183	742
Garfield	31	15.30	31	23.44	2–1	8.50	2–1	9.45	American	N. O. & S. A. S. S. Co.	299.4	45.0	22.3	Iquique, Chile	New Orleans, La.	Nitrates	3,631	3,256	2,010
Kent	31	17.00	2–1	1.32	1	9.55	1	8.55	British	N. Z. Shipping Co.	477.5	62.8	23.0	Napier, N. Z.	London, England	Frozen, general	5,639	10,609	8,135
Illinois [1]	31	17.10	1	2.14	1	11.05	1	11.05	American	The Texas Co.	416.8	56.1	25.6	Los Angeles, Calif.	Providence, R. I.	Gasoline	7,782	7,150	5,330
Kafiristan	2–1	3.40	1	4.32	1	11.55	1	11.55	British	Common Brothers	390.0	53.6	24.3	Vancouver, B. C.	Antwerp, Belgium	Wheat	8,807	5,626	4,162
Bethore	1–31	18.00	1	5.05	1	15.05	1	15.05	American	Ore S. S. Corp.	550.3	72.2	35.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	20,800	15,476	4,354
Henri Desmarais [2]	31	20.50	1	6.25	1	15.40	1	23.35	French	Davies Newmann	400.5	51.2	27.6	Los Angeles, Calif.	Le Havre, France	Gasoline	7,350	5,930	4,178
Agwistone [1]	1–1	4.20	1	8.13	1	17.15	1	17.15	American	Inter Shipping Corp.	499.9	68.1	29.0	Los Angeles, Calif.	New York, N. Y.	Gas oil	15,693	10,853	7,804
Albionstar	1	7.05	1	8.34	1	17.50	2	4.55	British	Blue Star Line	450.0	58.5	26.6	N. Westminster	Newcastle, England	Fruit, general	5,658	8,617	5,531
Rotorua	1–31	23.30	1	10.25	1	18.00	1	18.00	British	N. Z. Shipping Co.	526.4	61.4	23.6	Wellington, N. Z.	London, England	Frozen, general	5,903	12,846	9,439
Dean Emery [1]	1–1	8.20	1	11.21	1	19.25	1	19.25	American	Pan.-Amer.Pet.&Tr.Co	429.3	59.2	26.6	San Francisco, Cal.	New York, N. Y.	Gasoline	9,520	7,709	5,517
Howick Hall	1	12.20	1	13.11	1	21.05	1	23.05	American	N. Y. & S. A. Line	400.8	51.5	26.0	Antofagasta, Chile	Savannah, Ga.	Nitrates	7,401	6,095	4,381
Suricheo	1	12.35	1	13.34	1	22.05	2	1.10	American	Transmarine Lines	324.0	46.2	24.0	Valparaiso, Chile	Wilmington, N. C.	Nitrates	4,799	3,984	2,628
Vidovdan	1	13.00	1	13.59	1	23.55	2	2.10	Yugoslav	Baburizza & Co.	421.9	55.3	25.0	Antofagasta, Chile	Azores [18]	Nitrates	8,150	6,367	4,324
Kanawha			2	5.07	2	12.35	4	7.17	American	U. S. Navy	455.0	56.0		Balboa, C. Z.	Cristobal, C. Z.				
Neches			2	6.15	2				American	U. S. Navy	475.0	56.0		Balboa, C. Z.	Cristobal, C. Z.				
Pacific	2	1.35	2	7.30	2	14.50	2	14.50	American	Argonaut S. S. Co.	399.7	56.2	26.3	Seattle, Wash.	Providence, R. I.	([26])	7,939	6,517	4,723
Kurdistan	2	3.30	2	8.45	2	16.10	2	16.10	British	Common Brothers	420.0	54.0	25.0	Vancouver, B. C.	London, England	Grain	8,564	6,298	4,576
Arizona	2	12.45	2	13.29	2	21.30	3	14.00	French	French Line	425.0	54.8	23.4	Seattle, Wash.	Le Havre, France	General	6,835	7,097	4,936
Knute Nelson [13]	2	14.45	2	23.15	3	9.15	3	13.30	Norwegian	Fred Olsen & Co.	436.0	56.0	27.3	Vancouver, B. C.	Oslo, Norway	General	8,328	8,016	5,854

[1] Tanker. [20] Mine planter. [21] Tug. [22] Launch. [23] Towing raft. [24] Coffee, sugar, hides, wood, and bullion. [25] Coffee, and canned goods. [26] Lumber, ore, and pulp.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
January 27	Nidar	General American Shipping Co	Tampa, Fla.
January 27	Camden	United Fruit Co	Curacao, D. W. I.
January 27	Midas	Royal Netherlands S. S. Co	Maracaibo, Venezuela.
January 28	Maravi	United Fruit Co	New York, N. Y.
January 28	Managui	United Fruit Co	New York via wayports.
January 29	Patella	Anglo-Saxon Petroleum Co	Curacao, D. W. I.
January 30	Iriona	United Fruit Co	New Orleans, La.
January 30	Ancon	Panama Railroad S. S. Line	New York via Haiti.
January 30	Cavina	Elders & Fyffes, Ltd	Avonmouth via wayports.
January 30	Metapan	United Fruit Co	New York via Kingston.
January 30	Tegucigalpa	Standard Fruit & S. S. Co	New Orleans, La.
January 30	William M. [27]	G. I. Bryan	Colon, R. P.
January 31	Santa Marta	United Fruit Co	Cartagena, Colombia.
January 31	Calamares	United Fruit Co	New York via wayports.
February 1	Suriname	United Fruit Co	Puerto Colombia.
February 1	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
February 1	Calgaric	White Star Line	New York via wayports.
February 1	California	Cunard Line	New York via wayports.
February 1	Delilian	Leyland Line	Liverpool via wayports.
February 1	Inapaquina [28]	United Fruit Co	Colon, R. P.
February 2	Linda S. [29]	Surgeon Brothers	Colon, R. P.
February 2	Anachucuna [28]	United Fruit Co	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
January 27	Duchess of Bedford	Canadian Pacific S. S. Co	Kingston, Jamaica.
January 27	Kungsholm	Swedish-American Line	New York via wayports.
January 28	Cartago	United Fruit Co	New Orleans via wayports.
January 28	Camden	United Fruit Co	Port Limon and Curacao.
January 29	Maravi	United Fruit Co	Puerto Colombia.
January 29	Nidar	General American Shipping Co	Cienfuegos, Cuba.
January 29	Managui	United Fruit Co	New York via Kingston.
January 30	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
January 30	William M. [27]	G. I. Bryan	Bluefields, Nicaragua.
January 31	Patella	Anglo-Saxon Petroleum Co	Curacao, D. W. I.
January 31	Metapan	United Fruit Co	Colombian ports.
January 31	Santa Marta	United Fruit Co	New York via Kingston.
January 31	Iriona	United Fruit Co	Port Limon and Bocas.
February 1	Tegucigalpa	Standard Fruit & S. S. Co	New Orleans, La.
February 1	Cavina	Elders & Fyffes, Ldt	Avonmouth via Kingston.
February 1	Suriname	United Fruit Co	New Orleans, La.
February 1	Calamares	United Fruit Co	New York via wayports.
February 1	Inapaquina [28]	United Fruit Co	Colon, R. P.
February 2	Calgaric	White Star Line	New York via wayports.
February 2	Linda S. [29]	Surgeon Brothers	Bluefields, Nicaragua.
February 2	Anachucuna [28]	United Fruit Co	Colon, R. P.
February 2	Delilian	Leyland Line	Palo Alto, Cuba.

[27] Schooner. [28] Motor boat. [29] Motor schooner.

PORT OF BALBOA.

January 30	Cricamola [30]	Chiriqui Land Co	Pto. Armuelles, R. P.
January 31	El Colon [31]	H. Elliot	Darien, R. P.
February 1	A. B. de Obarrio [31]	Pacific Fruit Co	Bayano River, R. P.
February 1	Dos Hermanos [31]	A. Valdez	Bayano River, R. P.
February 2	San Luis [31]	Chiriqui Land Co	Pto. Armuelles, R. P.

January 31	Cricamola [30]	Chiriqui Land Co	Pto. Armuelles, R. P.
January 31	El Colon [31]	H. Elliot	Panama Bay, R. P.
February 1	A. B. de Obarrio [30]	Pacific Fruit Co	Panama Bay, R. P.
February 1	Dos Hermanos [31]	A. Valdez	Panama Bay, R. P.
February 1	Lagarto [30]	Pacific Steam Navigation Co	Coronel, Chile.
February 2	San Luis [31]	Chiriqui Land Co	Panama Bay, R. P.

[30] Motor ship. [31] Motor schooner. * Other than ships passing through the Canal.

Notice to Mariners.

The Hydrographic Office of the United States Navy included among the Notices to Mariners published under date of January 26, 1929, the following (No. 240), quoted from Nachrichten für Seefahrer 52 (4817), Berlin, December 29, 1928:

The master of the German steamer *Schwarzwald* reports that the wreck of a lighter lies sunk west-northwestward of Punta Limones, in (approximately) 3° 50′ 39″ N., 77° 07′ 27″ W. (on H. O. Chart 1786). A black buoy marks the wreck temporarily. The notation "(1928) P. D." will be inserted against this wreck on the chart.

Tanker Traffic Through the Panama Canal in January, 1929.

During the month of January, 1929, 99 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 520,411, on which tolls of $468,542.16 were collected. Cargo amounted to 521,554 tons. In point of net tonnage, tanker traffic for the past month showed an increase of 10.3 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage increased 35.7 per cent over the cargo tonnage of January, 1928.

Tank ships comprised 16.4 per cent of the total commercial transits through the Canal during the month; made up 18.7 per cent of the total Panama Canal net tonnage; were the source of 18.7 per cent of the total tolls collected; and carried 19.3 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of January, 1929, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals, for the two preceding months and for January, 1928:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	10	50,933	$36,671.76	
Danish	1	6,054	4,358.88	
Danzig	1	6,338	4,563.36	
French	2	9,250	6,660.00	
German	1	4,133	2,975.76	
Norwegian	1	5,822	4,191.84	
Peruvian	1	144	103.68	
United States	29	159,106	117,983.28	
Totals, January, 1929	46	241,780	177,508.56	
Totals, December, 1928	44	229,747	171,163.47	15,700
Totals, November, 1928	37	204,612	149,609.70	9,244
Totals, January, 1928	48	252,682	182,391.35	2,291
Pacific to Atlantic.				
Belgian	1	4,976	5,710.00	9,600
British	[1] 8	39,811	43,132.50	73,329
Danish	1	5,695	5,910.00	11,259
Danzig	1	6,338	6,545.00	11,400
Dutch	1	5,065	5,675.00	8,890
French	2	9,685	10,475.00	18,877
German	2	8,319	8,897.50	16,570
Norwegian	5	23,256	24,970.00	45,598
United States	32	175,486	179,718.60	326,031
Totals, January, 1929	53	278,631	291,033.60	521,554
Totals, December, 1928	37	194,903	198,667.64	345,004
Totals, November, 1928	44	233,612	241,705.35	424,708
Totals, January, 1928	39	218,983	221,233.75	404,926

[1] Includes 1 tanker of molasses, Panama Canal tonnage 6,287, tolls $6,707.50, cargo 12,030 tons.

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for January, 1928:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
January, 1929	32	174,269	$125,631.30	.....
December, 1928	38	201,765	151,016.43	15,700
November, 1928	29	660,638	115,659.36	.....
January, 1928	35	198,205	161,444.50	.....
From Los Angeles.				
January, 1929	40	206,611	215,099.85	391,511
December, 1928	26	136,116	137,683.75	243,385
November, 1928	33	174,578	180,329.10	317,050
January, 1928	26	146,507	149,595.00	273,534

Air Mail Between the United States and the Canal Zone.

Regular air mail service between the United States and the Canal Zone was begun with the departure from Miami on February 4 of the plane *NC 8000* of the Pan-American Airways, Inc., arriving at France Field the afternoon of February 6. Stops were made at Le So, Cuba; Belize, British Honduras (over night); Tela, Honduras; Managua, Nicaragua (over night); Puntarenas, Costa Rica; David, Panama; France Field. The plane delivered six sacks of United States mail weighing about 350 pounds to a truck sent from the Cristobal post office. The return flight with mail from the Canal Zone is to start from France Field on the morning of February 10 and is scheduled to follow to the United States the route used on the southward flight, with arrival at Miami scheduled for the afternoon of February 12.

For the present the service will provide flights in both directions twice monthly. The operating company has announced its intention of expanding the service as rapidly as air ports can be conditioned and new planes be added to the equipment, with the expectation that daily departures can be realized within a year. For the present the only contract which has been made for the handling of mail is with the Post Office Department of the United States but it is expected that arrangements will be made for carrying mail to and from all of the countries at which stops are made. No commercial passengers are being carried at this stage of the development, and the company has announced a policy of not accepting such passengers until the safety of the service has been demonstrated by a period of successful operation, possibly several months.

On its first flight the plane carried only employees of the operating company including as pilot, Col. C. A. Lindbergh, Air Corps, who conducted a lone flight over approximately the route of this service in January, 1928, as part of a good will tour through the countries of the Caribbean area.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., February 13, 1928. No. 28.

New High Records for Month's Commercial Transits, Measurement Tonnage, Tolls and Cargo, Established in January, 1929.

Supplementing the article in THE PANAMA CANAL RECORD of February 6, 1929, stating that traffic through the Panama Canal in January, 1929, had broken all previous records with respect to commercial transits and tolls collected for a month's period, figures recently compiled show that ship tonnage and cargo tonnage for the month have also established new high records for these respective items.

The following tabulation shows the number of transits, tonnage, tolls collected, and tons of cargo carried during the past month, as compared with the corresponding totals made during previous record months, and the amount of the increases:

Commercial traffic.[1]	January, 1929.	Previous high record.		Increase.
Number of transits	603	589	December, 1927	14
Tonnage:				
Panama Canal net	2,771,280	2,698,140	December, 1923	73,140
United States net	2,117,812	2,055,648	December, 1928	62,164
Registered gross	3,470,934	3,359,731	December, 1928	111,203
Registered net	2,122,121	2,056,933	December, 1928	65,188
Tolls collected	$2,592,815 12	$2,443,029.39	December, 1928	$59,785.73
Tons of cargo	2,858,835	2,717,646	October, 1927	141,189

[1] Commercial traffic includes all craft subject to the payment of tolls except small vessels under 20 net tons, Panama Canal net measurement. It does not include vessels in the public service of the Governments of the United States, Panama, and Colombia, and ships which transit the Canal solely for the purpose of having repairs made at the Balboa shops and dry dock, as such vessels are exempt from payment of tolls.

Record Nitrate Shipments in January.

During the month of January, 1929, 358,600 tons of Chilean nitrates passed through the Panama Canal. This surpassed the previous high record of 315,670 tons shipped through during the month of December, 1928, by 42,980 tons. Of this January cargo, 229,810 tons were destined to Europe, 110,563 tons to the United States, and the balance, consisting of small shipments, to Egypt and the West Indies.

The graph and tabulation below give a comparison of nitrate shipments and of the other larger commodities passing through the Canal from the Pacific to the Atlantic during the month of January, 1929:

Commodity.	Long tons	Per cent of total from Pacific to Atlantic.
Mineral oils	509,841	24.3
Nitrates	358,600	17.1
Wheat	330,500	15.7
Lumber	229,743	10.9
Ores	120,594	5.7
Canned goods	105,824	5.0
Other	443,913	21.3

An article showing the shipments of Chilean nitrates through the Canal for the past 8 calendar years was published in THE PANAMA CANAL RECORD of January 23, 1929.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 9, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Barneveld	1	16.15	3	6.15	3	16.52	3	18.15	Dutch	Royal Neth. S. S. Co	446.0	58.0	25.3	Hamburg, Germany	Corral, Chile	General	5,588	7,820	5,980
Notre Dame de Fourviere	2	14.05	3	7.05	3	17.56	3	19.00	French	French Line	417.0	58.2	16.0	Havre, France	Vancouver, B. C.	General	1,425	8,043	5,454
Baralt	1-31	19.55	3	6.10	3	16.57	3	18.57	Dutch	Royal Neth. S. S. Co.	202.0	33.1	11.3	Cristobal, C. Z.	Guayaquil, Ecuador	General	190	1,183	742
Paez [1]	2-2	22.25	3	7.50	3	17.56			Venezuela	Venezuela Gulf Oil Co.	300.0	50.0	11.0	Maracaibo, Venez.	Balboa, C. Z.	Ballast			
Castor [1]	3	7.25	3	9.10	3	19.00	3	23.45	Swedish	F. Malmros	466.0	62.0	20.3	Falmouth, England	Los Angeles, Calif.	Ballast		8,960	6,295
Willhilo	3	7.35	3	9.40	3	20.10	4	1.30	American	Williams S. S. Line	434.3	57.7	22 9	Baltimore, Md	Seattle, Wash.	(4)	6,829	7,983	5,859
Annam [2]	2	19.00	3	10.45	3	21.25	4	15.00	Danish	East Asiatic Co.	410.0	55.0	22.10	Newcastle-on-Tyne	Vancouver, B. C.	General	6,269	7,067	5,286
San Mateo	3	2.25	3	11.26	3	21.40	4	1.00	American	United Fruit Co	315 2	44.2	20.3	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	670	3,496	2,141
Perseus	3	7.30	3	11.50	3	22.30	3	23.42	Greek	Kulukundis & Marg'nis	390 0	52.7	15.0	Rotterdam, Holland	Arica, Chile	Ballast		6,283	4,619
Annie Johnson [2]	3	8.45	3	13.35	3	23.30	4	4.04	Swedish	Johnson Line	392.2	52.0	18.2	Stockholm, Sweden	Vancouver, B. C.	General	2,676	6,650	4,919
Sommerstad [1 2]	3	19.30	3	20.12	4	20.04	5	18.05	Norwegian	Caucasian Oil Co	381 0	55.2	18.0	Falmouth, England	Los Angeles, Calif.	Ballast		5,994	3,876
Kanawha [1]	2	12.05	4	7.17	4	21.15			American	U. S. Navy	455.0	56.0	19.0	Cristobal, C. Z.	Balboa, C. Z.	Fuel oil			
Pacific Redwood	3	19.20	4	9.40	4	23.27	5	00.50	American	Dimon S. S. Corp	409.0	54.0	19.10	Norfolk, Va	Los Angeles, Calif.	General	5,691	6,537	4,841
Jamaica	1-31	14.55	4	9.45	4	21.37	4	23.24	British	Pacific Steam Nav. Co.	220 0	34.0	13.2	Cristobal, C. Z.	Champerico, Guat.	General	757	1,187	622
Guatemala	2-2	19.03	3	10.42	4	22.45	5	2.07	American	Panama Mail S. S. Co.	360.2	51.6	22.10	New York, N. Y.	San Francisco, Cal.	General	2,789	5,776	4,081
Feltore	3	20.10	4	12.40	5	00.33	5	2.07	American	Ore S. S. Corp	449.1	57.2	18.3	Baltimore, Md	Cruz Grande, Chile	Ballast		7,808	5,139
Sidney M. Hauptman	4	00.50	4	14.00	5	1.45	5	3.00	American	Munson, McCor'k Line	401.0	53 2	24.0	Baltimore, Md	Tacoma, Wash.	Steel, general	5,225	7,082	5,167
Sapelo [1]	4	6.20	4	15.05	5	2.51			American	U. S. Navy	463.0	60.0	27.0	Port Arthur, Texas	Balboa, C. Z.	Fuel oil	10,917		
Nordlys	4	9.25	4	16.10	5	4.14	5	5 06	Danish	Wessel Duval & Co	362.0	51.5	21.0	Baltimore, Md	San Antonio, Chile	Coke	4,018	4,932	3,468
A. L. Kent	4	15.07	4	17.50	5	5.45	5	12.10	American	U. S. Steel Products Co.	394.1	55.1	27.0	Baltimore, Md	Seattle, Wash.	Steel, general	8,352	7,047	5,132
Silverbeech [2]	4	17.28	4	18.55	5	6.22	5	7.08	British	Kerr Line	425.0	58.3	23.6	New York, N. Y.	Singapore, St. Set.	General	5,491	8,226	6,039
Swan [3]			4	12.45	4	22.35			American	U. S. Navy	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.				
Archer	4	22.05	5	7.20	5	18.35	5	19.50	American	Roosevelt S. S. Co., S. B.	440.0	56.0	27.0	Baltimore, Md	Taku Bar, China	Case oil, general	7,804	8,315	6,100
Uranienborg	5	5.55	5	8.10	5	20.55	5	21.51	Danish	C. K. Hansen	346.0	50.0	12.0	Aruba, D. W. I.	Los Angeles, Calif.	Ballast		4,784	4,643
Ruahine	5	10.15	5	10.30	5	19.50	6	3.09	British	N. Z. Shipping Co	480.6	60.3	29.6	London, England	Auckland, N. Z.	General	9,896	11,443	8,417
Mantaro	4	14.38	5	11.25	5	21.02	5	22.20	Peruvian	Peruvian Line	369.0	46.0	19.3	Covenas, Colombia	Callao, Peru	General, cattle	332	4,838	2,959
Mineola	5	3.35	5	11.30	5	22.15	5	23.20	American	N. O. & S. A. S. S. Line	298.6	40.0	19.10	New Orleans, La.	Talcahuano, Chile	Lumber, steel	2,706	2,835	1,805
Harry Luckenbach	5	11.20	5	12.30	5	23.00	5	23.54	American	Luckenbach Line	448.9	60.2	25.1	Houston, Texas	Seattle, Wash.	General	6,463	9,262	6,853
Marore	5	11.30	6	6.15	6	17.05	6	18.20	American	Ore S. S. Corp	550.3	72.2	22.0	New York, N. Y.	Cruz Grande, Chile	Ballast		15,551	4,297
Cape Verde	5	13.10	6	6.15	6	18.12	6	20.10	British	Dom. Iron & Steel Co.	505.3	53.0	24.9	Sydney, C. B.	Vancouver, B. C.	General	7,199	5,756	4,118
Kansan	5	23.47	6	7.39	6	19.10	6	20.30	American	Amer.-Hawaiian Line	404.6	53.9	20.0	Boston, Mass	Seattle, Wash.	General	3,913	6,779	4,927
Dorothy Luckenbach	5	23.58	6	8.00	6	20.15	6	22.40	American	Luckenbach Line	448.9	60.2	24.0	Boston, Mass	Seattle, Wash.	General	7,000	9,294	6,861
Tofuku Maru	6	4.40	6	8.50	6	21.35	6	23.44	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.6	Philadelphia, Pa.	Yawata, Japan	(5)	6,734	5,919	4,400

[1] Tanker. [2] Motor ship. [3] Mine sweeper. [4] Coal, cobblings, and general. [5] Tin, scrap, rosin, and cotton.

Canadian Highlander	6	7.35	6	9.55	6	22.19	7	8.05	British	Can. Nat. Steamships	400.0	52.0	17.6	Halifax, N. S.	Adelaide, Australia	General	3,038	6,192	4,402
Herman Falk [2]	6	3.40	6	11.50	6	23.20	7	00.43	American	Tidewater Oil Co	431.0	59.2	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,862	5,049
Kenowis [6]	3	16.30	6	14.30	7	00.31			American	U. S. Army	390.0	54.2	20.7	New York, N. Y.	San Francisco, Cal.	Army supplies	2,455		
Bauta	6	12.55	6	17.00	7	1.45	7	3.35	Norwegian	William Hansen	270.1	38.1	11.6	Newport, England	Puntarenas, C. R.	Ballast			
Santa Teresa	6	17.10	7	6.17	7	18.28	7	20.32	American	Grace Line	360.0	51.0	24.2	New York, N. Y.	Valparaiso, Chile	General	2,230	5,726	4,086
Surico	7	3.30	7	6.30	7	18.42	7	19.48	American	Transmarine Lines	324.0	46.2	19.6	Mobile, Ala.	Seattle, Wash.	General	2,786	3,984	2,628
Dacre Castle	6	14.25	7	6.20	7	21.00	8	8.26	British	Barber S. S. Line	412.11	52.3	25.3	Philadelphia, Pa.	Tsuruga, Japan	General	6,457	5,846	4,215
Salinas [1]	5	15.50	7	7.35	7	19.50			American	U. S. Navy	463.0	60.0	20.6	Cristobal, C. Z.	Balboa, C. Z.	Fuel oil			
Middlesex	6	20.00	7	8.05	7	21.55	7	23.16	British	Federal Steam Nav. Co.	460.0	62.0	25.0	Liverpool, England	Dunedin, N. Z.	General	5,884	10,663	7,727
Toba Maru	7	9.25	7	9.40	7	23.05	8	00.19	Japanese	Nippon Yusen Kaisha	445.0	58.0	25.6	Boston, Mass.	Kobe, Japan	General	7,558	8,058	5,743
Edwin Christensen	7	10.00	7	10.30	8	00.06	8	5.44	American	Arrow Line	410.0	54.2	19.0	Baltimore, Md.	San Francisco, Cal.	General	4,969	6,603	4,932
City of Norwich	7	10.35	7	11.00	8	00.58	8	14.45	British	Ellerman Hall Lines	434.0	55.0	24.0	New York, N. Y.	Geelong, Australia	General	4,325	8,088	6,260
Pacific Shipper [2]	6	8.30	7	12.50	8	2.11	8	7.40	British	Furness, Withy & Co.	420.0	58.0	17.9	Glasgow-England	Vancouver, B. C.	General, bananas	1,371	7,892	5,858
Herminius	6	17.45	7	13.50	8	17.57	8	19.00	British	Shaw, Savill & Albion	477.0	63.0	31.0	Antwerp, Belgium	Auckland, N. Z.	Slag, phosphates	6,870	10,973	7,848
Schwaben	6	18.30	7	14.55	8	3.14	8	4.35	German	North German Lloyd	491.0	63.8	23.0	Hamburg, Germany	Vancouver, B. C.	[8]	4,048	10,002	6,743
Cauca [2]	1-10	12.10	8	6.40	8	17.54	9	00.10	Colombian	National Navigation Co.	107.2	22.0	10.0	Cristobal, C. Z.	Buenaventura, Col.	General	313	238	163
Schwarzesse	2-7	8.45	8	6.25	8	19.55	8	21.25	German	Knudsen	360.0	48.0	23.9	Brevik, Norway	Buenaventura, Col.	General	5,600	4,654	3,359
Scythian	7	17.05	8	6.30	8	19.58	8	21.25	British	Leyland Line	390.0	50.6	25.0	Tampico, Mexico	Adelaide, Australia	Asphalt	5,807	5,411	3,804
Steel Scientist	7	17.15	8	7.35	8	21.00	8	22.00	American	U. S. Steel Products Co	424.0	56.0	26.6	New York, N. Y.	Dutch East Indies	General	8,221	7,611	5,454
Canadian Winner	7	18.05	8	7.20	8	21.58	8	23.23	British	Can. Nat. Steamships	400.0	52.0	21.0	Halifax, N. S.	Bluff, N. Z.	General	4,308	5,885	4,073
Abron	8	3.00	8	8.30	8	23.00	9	00.06	American	Redwood Line	386.8	52.2	22.7	Mobile, Ala.	San Francisco, Cal.	Sulphur, general	5,846	5,732	4,131
Sir Osborn Holmden [1] [2]	8	7.00	8	10.00	9	00.17	9	4.55	Norwegian	A. F. Klaveness & Co	471.8	64.0	18.0	Falmouth, England	Los Angeles, Calif.	Ballast		9,562	6,604
Chinese Prince [2]	8	9.28	8	15.15	9	2.45	10	14.49	British	Prince Line	441.0	61.0	23.4	New York, N. Y.	Manila, P. I.	General	7,463	9,254	6,265
Visargis	5	20.59	8	15.15	9	00.21	9	1.28	German	Roland Line	231.0	37.8	15.0	Cristobal, C. Z.	Pto. Armuelles, R. P.	General	1,870	1,406	855
Tejon [1]	8	14.43	8	15.15	9	1.20	9	2.48	American	Gen. Petroleum Co	425.8	57.0	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,218	4,953
Seattle [2]	7	16.30	9	6.20	9	20.15	10	10.48	German	Hamburg-American Line	461.0	62.0	25.9	Hamburg, Germany	Vancouver, B. C.	General, bananas	7,329	9,267	6,834
Phoenicia [2]	8	11.15	9	6.10	9	19.02	9	20.00	German	Hamburg-American Line	374.0	53.0	13.10	Hamburg, Germany	Champerico, Guat.	General	891	5,425	3,508
Guayaquil	7	18.00	9	6.07	9	19.00	9	20.00	American	Panama R. R. S. S. Line	251.0	43.6	19.2	New York, N. Y.	Guayaquil, Ecuador	General	1,498	2,874	1,944
Sirjameco	8	16.30	9	7.15	9	21.00	9	22.40	American	Transmarine Lines	324.0	46.0	18.0	Newark, N. J.	Oakland, Calif.	General	1,767	3,981	2,628
Orleans	8	19.20	9	7.45	9	21.25	9	22.40	American	Quaker Line	395.0	55.0	21.6	Wilmington, Del.	Portland, Oreg.	General	5,043	7,330	5,233
President Johnson	9	5.50	9	8.45	9	16.40	10	00.48	American	Dollar Line	600.0	65.0	20.0	New York, N. Y.	San Francisco, Cal.	General	4,109		
Mongolia	9	7.10	9	8.55	9	17.49	10	00.48	American	Panama-Pacific Line	600.0	65.3	28.6	New York, N. Y.	San Francisco, Cal.	General	2,308	17,041	11,426
Wilscox [2]	8	16.50	9	12.35	9	22.35			American	Roosevelt S. S. Co., S. B.	491.9	54.2	24.0	Galveston, Texas	Fremantle, Aust'lia	[9]	6,600		
Thos. P. Beal	8	19.35	9	14.15	9	23.31	10	00.48	American	Isthmian S. S. Lines	391.0	54.0	24.9	Baltimore, Md.	Tacoma, Wash.	Steel, general	7,126	7,047	5,100
Gothicstar	9	9.45	9	15.15	10	00.36	10	2.10	British	Blue Star Line	420.0	54.7	19.8	Newcastle, England	Vancouver, B. C.	Ballast		7,521	5,852
William H. Doheny [1]	9	1.25	9	16.30	10	1.35	10	3.38	American	Huasteca Petroleum Co.	435.0	56.2	18.0	Baltimore, Md.	Los Angeles, Calif.	Ballast		7,406	5,111
Port Adelaide	9	13.35	9	17.50	10	2.41	10	4.00	British	Com'lth & Dom. Line	481.2	62.3	26.6	New York, N. Y.	Adelaide, Australia	General	2,064	10,777	8,130
Treloske	9	16.20	9	19.05	10	3.38	10	4.40	British	Hain S. S. Co.	400.2	52.1	14.9	Lake Charles, La.	Vancouver, B. C.	Ballast		5,767	4,319
Rolling Stone [7]	9	6.35	9	6.35	9	16.40			American	Robert Wilcox	48.0	11.6		Colon, R. P.	Balboa, C. Z.	Ballast		27	20

[1] Tanker. [6] U. S. Army transport. [7] Yacht. [8] Iron, paper, and general. [9] Sulphur, case oil, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Sucarseco	2	17.52	3	00.48	3	11.10	3	11.10	American	Transmarine Lines	324.0	46 2	24.0	Aberdeen, Wash.	Newark, N. J.	Lumber	4,250	3,984	2,628
Broad Arrow [1]	2	18.00	3	5.02	3	13.20	3	13.20	American	Standard Oil Co. of N.Y.	457.6	62.7	26 6	Los Angeles, Calif.	Boston, Mass.	Gasoline	11,168	9,700	6,842
Amerikaland [10]	2	14.00	3	5.50	3	14.55	3	14.55	Swedish	Ore S. S. Corp.	561.0	72.2	33.6	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,500	15,560	4,496
Paul Shoup [1]	3	2.05	3	7.18	3	16.08	3	16 08	American	Associated Oil Co.	424 4	58 2	26 0	San Francisco, Cal.	New York, N. Y.	Gasoline	8,253	7,333	5,182
Agwistar	3	4.23	3	8.04	3	17.20	3	21.35	American	Grace Line	370.0	52.1	24.6	Valparaiso, Chile	Houston, Texas	Nitrates	6,900	5,523	4,068
Axel Johnson [10]	3	8.15	3	11.25	3	18.20	3	22.15	Swedish	Johnson Line	409.0	52 6	25.0	Vancouver, B. C.	Stockholm, Sweden	(12)		4,963	6,642	4,860
Negada	3	11.00	3	12.00	3	20.10	7	1.45	German	Hamburg-American Line	410.0	59.7	23.6	Magallanes, Chile.	Hamburg, Germany	General		4,732	6,402	4,463
Nicolaos Zafirakis	3	12.50	3	13.28	3	22.15	3	23.55	Greek	Cristofores Zafirakis.	350.0	46.0	23.0	Iquique, Chile.	Azores [13]	Nitrates		5,600	3,981	2,958
Somme [11]	3	17.10	3	23.20	4	9.05	5	17.05	American	U. S. Army	448.0	58.0	25 0	San Francisco, Cal.	Brooklyn, N. Y.	Army general		156		
Lippe	3	16.20	3	23.52	4	9.45	4	15.30	German	North German Lloyd.	475.3	60.7	26 6	San Antonio, Chile.	Hamburg, Germany	General		10,195	8,734	5,995
Tirso	3	17.40	4	1.05	4	9.50	6	16.10	Italian	Nav. Gen. Italiana	397 4	52.6	24.6	Valparaiso, Chile.	Genoa, Italy	(14)		5,950	5,870	4,188
Orion	3	22.30	4	2.00	4	10.55	4	12.50	Danish	Orion S. S. Co.	303 0	43.0	12 0	Puntarenas, C. R	Manzanillo, Cuba.	Ballast			2,800	1,723
Izgled	3	21.05	4	2.25	4	12.23	4	14.00	Yugoslav	Yugoslavenski Lloyd.	380.0	53.3	23.6	Antofagasta, Chile.	Azores [13]	Nitrates		7,335	5,236	3,987
Sugillenco	3	23.30	4	3.54	4	12.55	4	12.55	American	Transmarine Lines.	324.0	46.2	23.0	Everett, Wash.	Newark, N. J.	Lumber		3,990	3,984	2,612
Dunrobin	3	22.00	4	3.59	4	14.30	4	18.55	British	Anglo-Chilean Nit'e Co	404.9	53.0	24 0	Tocopilla, Chile	Norfolk, Va.	Nitrates		8,097	5,651	4,076
Hindpool	3	22.30	4	5.12	4	15.05	4	18.10	British	Sir R. Ropner & Co.	405 0	53 5	23.9	Prince Rupert, B.C.	United Kingdom	Wheat		7,752	5,878	4,281
Tiger [1]	4	1.00	4	6.07	4	15.40	4	15.40	American	Standard Transp. Co.	410.0	56.0	27.8	Los Angeles, Calif	New York, N. Y.	Gas oil		8,500	8,201	6,207
Bridge			4	7.38	4	17.25	4	17.25	American	U. S. Navy	409 0	52.0	....	Balboa, C. Z.	Cristobal, C. Z.					
Almagro	4	6.30	4	7.46	4	17.35	5	9.20	British	Pacific Steam Nav. Co.	393.0	43.0	19.6	Coronel, Chile.	New York, N. Y.	(15)		2,982	2,826	1,760
Edgar F. Luckbach	4	6.30	4	8.34	4	18.45	4	18.45	American	Luckenbach Line.	425.0	57.3	28.0	Portland, Oreg.	New Orleans, La.	Lumber, general		7,127	8,568	6,638
Essequibo	4	8.15	4	11.27	4	20.10	5	00.05	British	Pacific Steam Nav. Co	450.3	57.8	24.0	Talcahuano, Chile	New York, N. Y.	Copper, general		2,610	9,158	6,176
Eclipse	4	4.30	4	11.50	4	22.20	4	22.20	American	Amer.-Pioneer Line	440.0	56.0	28.0	Manila, P. I.	New Orleans, La.	(16)		9,852	8,294	6,078
City of San Francisco [10]	3	18.55	4	12.01	4	21.20			Panaman	Panama Mail S. S. Co.	296.0	46.5	18.3	San Francisco, Cal.	Cristobal, C. Z.	(17)		1,259	3,848	2,606
San Manuel	4	6.35	4	13.12	4	23.00	5	3.15	British	Anglo-Mex. Pet. Co.	407.2	52.3	25.0	Los Angeles, Calif.	Lizard's Head, Eng	Gasoline		7,325	6,183	4,343
Mississippi	4	7.05	4	14.11	5	00.38	5	15.20	French	French Line	410.0	52.4	26.0	Talcahuano, Chile	Le Havre, France.	General		7,657	7,156	4,985
Oriole	4	9.40	4	15.06	5	8.45	5	11.00	American	Quaker Line	410.5	54.2	25.6	Portland, Oreg.	Philadelphia, Pa.	Lumber		7,200	6,755	4,873
Visurgis	4	13.15	4	15.19	5	8.39			German	Roland Line	231.2	37.8	12.3	Puntarenas, C. R.	Cristobal, C. Z.	Ballast			1,406	855
California	4	12.00	5	6.38	5	14.35	5	15.40	American	Panama-Pacific Line	574.4	80.3	30.0	San Francisco, Cal.	New York, N. Y.	General		8,012	24,506	17,565
Salina [1]			5	7.34	5	15.50	7	7.35	American	U. S. Navy	463.0	60.0		Balboa, C. Z.	Cristobal, C. Z.					
Swan			5	6.58	5	17.40			American	U. S. Navy	188.0			Balboa, C. Z.	Cristobal, C. Z.	(18)				
Quarrington Court	4	19.45	5	8.25	5	17.40	7	17.40	British	Court Line	420.0	56.6	26.0	Vancouver, B. C.	Europe	Grain		9,810	6,907	4,95
Santore	5	2.30	5	9.42	5	18.55	5	18.55	American	Ore S. S. Corp.	449.1	57.2	29.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore		11,614	7,808	5,139
Panaman	5	6.00	5	10.35	5	19.00	5	19.00	American	Amer.-Hawaiian Line	407.7	53.7	26.0	Los Angeles, Calif.	New York, N. Y.	General		6,337	7,098	5,065
Pacific Cedar	5	9.45	5	11.48	5	21.07	6	00.45	American	Dimon S. S. Corp.	399.4	54.7	25.0	Tacoma, Wash.	Philadelphia, Pa.	Lumber		6,642	6,138	4,354
Saramacca	5	10.30	5	12.17	5	21.15			American	United Fruit Co.	336.7	43.0	19.0	San Francisco, Cal.	Port Limon, C. R.	General		1,262	3,668	2,308

[1] Tanker. [10] Motor ship. [11] U. S. Army transport. [12] Wheat, fruit, and general. [13] For orders. [14] Nitrates, copper, and general. [15] Ore, copper, and metals [16] Sugar, copper, and general.
[17] Coffee, hides, and general. [18] Towing barge *No. 2.*

Hindustan	5	11.15	5	12.52	5	22.05	5	22.40	British	Common Brothers	400.0	52.4	24.8	Vancouver, B. C.	Rotterdam, Holland	Wheat	7,312	5,826	4,154
Romesdalshorn	5	12.00	5	13.51	5	23.25	5	23.25	Norwegian	Jacob R. Olsen	420.0	53.9	28.6	Antofagasta, Chile	Charleston, S. C.	Nitrates	10,249	6,592	4,733
Bridgepool	5	13.50	6	2.54	6	12.40	6	14.30	British	Sir. R. Ropner & Co.	390.0	55.5	24.2	Vancouver, B. C.	Antwerp, Belgium	Wheat	7,624	5,889	4,274
J. R. Gordon	5	14.40	6	4.12	6	13.45	6	13.45	American	Union Sulphur Co.	409.8	54.2	24.3	Portland, Oreg.	Providence, R. I.	Lumber	6,200	6,851	4,784
Lewis Luckenbach	5	17.50	6	5.00	6	13.30	6	13.30	American	Luckenbach Line	496.0	68.2	31.0	Portland, Oreg.	Boston, Mass	Lumber, general	12,452	11,487	8,762
Montrolite [1] [10]	4	21.40	6	6.20	6	14.45	6	14.45	British	Imperial Oil Co., Ltd.	510.9	68.2	29.7	Talara, Peru	New York, N. Y.	Crude oil	15,597	11,555	7,639
San Quirino [1]	6	6.30	6	7.40	6	16.10	6	18.40	British	Anglo-Mexican Pet. Co.	407.2	52.2	25.6	Los Angeles, Calif.	United Kingdom	Gasoline	7,395	6,156	4,212
Hazel Branch	5	21.10	6	8.31	6	17.20	6	23.35	British	F. & W. Ritson	400.0	51.0	24.5	Corral, Chile	Liverpool, England	General	6,352	5,208	3,578
Ullapool	5	21.15	6	9.21	6	18.40	6	19.45	British	Sir. R. Ropner & Co.	403.0	53.5	24.6	Vancouver, B. C.	Hamburg, Germany	Grain	7,900	5,876	4,327
Pennmar	6	4.00	6	10.20	6	18.50	6	18.50	American	Calmar S. S. Corp.	385.0	51.2	25.4	N. Westminster	Boston, Mass	Lumber	6,246	6,224	4,465
Waziristan	6	6.40	6	11.15	6	20.15	6	20.15	British	Common Brothers	390.0	53.5	24.9	Vancouver, B. C.	London, England	Wheat	7,889	5,612	4,119
Munaires	6	11.20	6	12.14	6	21.10	6	21.10	American	Munson Line	370.0	53.1	25.6	Pt. Townsend, Wash	New York, N. Y.	Lumber, general	5,435	5,577	4,225
Norwich City	6	12.05	6	13.21	6	22.54	7	3.00	British	Sir. W. R. Smith & Sons	399.0	53.5	25.0	Vancouver, B. C.	Hamburg, Germany	Wheat	7,868	6,051	4,514
Tamaroa	6	11.35	7	4.28	7	12.40	7	12.40	British	Shaw, Savill & Albion	500.4	63.2	27.6	Wellington, N. Z.	London, England	Frozen, general	5,700	3,592	9,383
Paez [1] [19]	3	17.56	7	7.08	7	13.50	7	16.10	Venezuelan	Venezuela Gulf Oil Co.	300.0	50.0	.....	Balboa, C. Z.	Maracaibo, Venez.	Ballast	.....	.....	.....
Naples Maru	6	23.30	7	7.19	7	16.20	7	20.40	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.1	Vancouver, B. C.	Lisbon, Portugal	Wheat	7,703	6,207	4,670
Chetopa	7	6.30	7	8.45	7	17.30	7	20.50	American	Charles Nelson & Co.	324.0	46.2	24.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	3,427	3,984	2,628
Atland	7	3.00	7	9.20	7	17.55	7	18.50	Swedish	Axel Brostrom & Son	388.0	52.3	25.0	Iquique, Chile	Azores [13]	Nitrates	7,325	5,631	3,343
Kastalia	6	23.00	7	9.53	7	19.05	7	19.50	British	Donaldson Brothers	385.0	52.0	23.6	Vancouver, B. C.	Glasgow, Scotland	General	6,046	5,530	3,917
Pareora	7	7.35	7	11.01	7	20.20	8	4.55	British	Federal Steam Nav. Co.	479.7	62.2	24.6	Pt. Chalmers, N. Z.	Dunkirk, France	(21)	9,609	9,458	6,867
Port Hardy	7	7.40	7	12.07	7	20.35	8	1.50	British	Com'lth & Dom. Line	481.2	62.3	28.0	Lyttleton, N. Z.	London, England	Frozen, general	7,230	11,136	8,109
Mercy [20]	.....	.....	7	12.45	7	21.05	9	16.10	American	U. S. Navy	455.0	51.0	.....	Balboa, C. Z.	Cristobal, C. Z.	.....	.....	.....	.....
Adra	7	9.45	7	14.14	7	22.35	8	9.35	British	C. T. Bowring	385.0	53.0	23.0	Prince Rupert, B.C.	Europe	Wheat	7,060	5,283	3,723
Heinrich Arp	7	10.45	7	14.18	7	22.55	8	19.10	German	Cia. Marit. Colombiana	327.0	38.0	14.6	Buenaventura, Col.	New York, N. Y.	Coffee, hides	1,023	1,718	1,167
West Honaker [10]	6	17.00	8	2.49	8	12.15	8	16.35	American	Roosevelt S. S. Co., S. B.	410.0	54.4	22.8	Geelong, Australia	Boston, Mass	(22)	6,638	6,736	4,881
Tongking [10]	7	14.30	8	3.35	8	14.00	8	14.40	Danish	East Asiatic Co.	410.0	55.2	28.6	Seattle, Wash.	Copenhagen, Den.	(23)	9,438	7,013	5,317
Colombia	7	14.00	8	4.59	8	13.35	10	1.05	American	Panama Mail S. S. Co.	380.0	48.7	23.8	San Francisco, Cal.	New York, N. Y.	Coffee, general	2,429	6,015	4,281
Astral	7	19.10	8	6.13	8	14.35	8	14.35	American	Standard Transp. Co.	439.5	58.0	28.6	Los Angeles, Calif.	Providence, R. I.	(24)	10,141	8,913	6,210
Robin Hood	7	17.10	8	7.10	8	15.25	8	15.25	American	Seas Shipping Co.	424.8	55.2	28.0	Vancouver, B. C.	Avonmouth, Eng.	General	8,319	7,473	5,533
Romanstar	7	20.40	8	8.25	8	17.05	9	00.20	British	Blue Star Line	420.0	54.0	24.9	San Francisco, Cal.	Newcastle, England	Chilled apples	5,177	7,433	5,870
Lebore	8	00.36	8	9.51	8	20.00	8	20.00	American	Ore S. S. Corp.	549.6	72.2	31.6	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	11,325	5,635
Maine	7	21.00	8	10.28	8	20.17	8	20.17	American	Seas Shipping Co.	402.0	54.2	28.0	Everett, Wash.	Portsmouth, Eng.	Lumber	7,670	6,936	5,924
Cali	8	7.30	8	10.43	8	21.00	10	13.50	German	North German Lloyd	216.6	32.9	14.9	Buenaventura, Col.	Cristobal, C. Z.	General	728	1,104	698
Tiberton	7	23.00	8	12.05	8	21.20	8	21.20	British	R. Chapman & Son	400.0	52.4	24.0	Vancouver, B. C.	Avonmouth, Eng.	Wheat	7,249	5,699	4,126
Sapelo [10]	.....	.....	8	13.24	10	20.00	12	4.05	American	U. S. Navy	461.6	60.0	.....	Balboa, C. Z.	Cristobal, C. Z.	.....	.....	.....	.....
Seekonk [10]	8	4.00	8	14.01	8	22.38	8	22.38	American	Williams Line	390.0	54.2	27.8	Portland, Oreg.	New York, N. Y.	General	7,157	6,162	4,417
Ohioan	9	7.35	9	1.42	9	10.00	9	10.00	American	Amer.-Hawaiian Line	407.7	53.7	25.0	Tacoma, Wash.	Boston, Mass.	General	5,859	7,103	4,991
Baluchistan	8	10.30	9	2.37	9	12.30	9	12.30	British	Common Brothers	381.0	51.2	22.6	Vancouver, B. C.	Fayal [16]	Wheat	6,575	5,296	3,933
Ludwigshafen	7	23.30	9	3.24	9	13.40	9	23.19	German	Roland Line	392.0	54.0	26.1	Valparaiso, Chile	Hamburg, Germany	General	7,713	6,600	4,622
Caldas [10]	8	23.40	9	3.41	9	13.30	.....	.....	Colombian	National Navigation Co.	116.0	21.1	8.0	Buenaventura, Col.	Cristobal, C. Z.	General	70½	211	124
Glenbeath	7	8.00	9	4.50	9	14.00	9	14.00	British	Canadian Transp. Co.	376.5	52.2	23.0	Olympia, Wash.	London, England	Lumber, general	6,276	5,224	3,934
Atlantic Sun [1]	8	19.50	9	6.07	9	14.30	9	16.55	American	Sun Oil Co.	429.3	59.2	26.0	Los Angeles, Calif.	Miami, Florida	Gasoline	9,249	7,568	5,283
Turicum [1] [10]	8	21.30	9	7.34	9	15.50	9	15.50	Norwegian	Camillo Eitzen & Co.	451.8	59.2	25.6	San Francisco, Cal.	Land's End [15]	Gasoline	9,582	8,279	5,442
Orita	8	23.45	9	8.34	9	16.50	9	20.05	British	Pacific Steam Nav. Co.	485.4	58.3	30.6	Talcahuano, Chile	Liverpool, England	Nitrates, general	8,182	9,936	6,561
Santa Cruz	9	6.00	9	9.25	9	18.25	10	10.55	American	Grace Line	384.0	50.2	22.6	Chanaral, Chile	New York, N. Y.	Nitrates, general	4,918	5,534	3,868
Aghios Marcus	9	3.30	9	10.15	9	21.50	9	22.40	Greek	D. Panirios	399.8	53.9	25.0	Antofagasta, Chile	Europe	Nitrates	7,500	6,319	4,655
Point Gorda	9	9.39	9	11.26	9	19.25	9	19.25	American	Swayne & Hoyt	324.0	46.2	21.4	Portland, Oreg.	New Orleans, La.	(25)	3,293	3,984	2,643
Rokos Vergottis	9	11.35	9	12.19	9	22.20	9	22.20	Greek	A. Frangopulo & Co.	400.0	52.4	26.0	Iquique, Chile	Azores [13]	Nitrates	8,000	5,819	4,230

[1] Tanker. [10] Came south for dry-docking. [20] U. S. Navy hospital ship. [21] Zinc, ore, tallow, and wool. [22] Iron ore, wool, and copra. [23] Wheat, barley, and general. [24] Kerosene distillate. [25] Lumber, wheat, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 3	Parismina	United Fruit Co	New Orleans via Habana.	February 3	Hvoslef	United Fruit Co	Mobile, Ala.
February 2	Hvoslef	United Fruit Co	Perme, R. P.	February 3	California	Cunard Line	New York via wayports.
February 5	Asturis	Royal Mail S. P. Co	Southampton via wayp'ts.	February 3	Ancon	Panama R. R. S. S. Line	New York via Haiti.
February 6	Granada	Standard Fruit & S. S. Corp	New Orleans via wayports.	February 4	Parismina	United Fruit Co	New Orleans via wayports.
February 6	Laconia	Cunard Line	Liverpool via wayports.	February 5	Asturias	Royal Mail S. P. Co	Southampton viaKingston.
February 6	Sixaola	United Fruit Co	New York via Kingston.	February 6	Wanks	Standard Fruit & S. S. Corp	San Blas, R. P.
February 6	Coppename	United Fruit Co	New Orleans, La.	February 6	Inapaquina [27]	United Fruit Co	Colon, R. P.
February 6	Reliance	Hamburg-American Line	New York via wayports.	February 6	Anachucuna [27]	United Fruit Co	Colon, R. P.
February 6	Inapaquina [27]	United Fruit Co	Colon, R. P.	February 6	San Pablo	United Fruit Co	Puerto Colombia.
February 6	Macoris	French Line	Havre via wayports.	February 7	Laconia	Cunard Line	Southampton viaKingston.
February 6	San Pablo	United Fruit Co	New York.	February 7	Coppename	United Fruit Co	Pto. Colombia via Bocas.
February 6	N. C. 8000 [26]	Pan-American Airways	Miami via wayports.	February 7	Sixaola	United Fruit Co	Colombian ports.
February 6	Anachucuna [27]	United Fruit Co	Colon, R. P.	February 7	Metapan	United Fruit Co	New York via Kingston.
February 7	Metapan	United Fruit Co	Cartagena, Colombia.	February 7	Macoris	French Line	Havre via wayports.
February 7	Venezuela	Royal Netherlands S. S. Co	Amsterdam via wayports.	February 7	Reliance	Hamburg-American Line	New York via wayports.
February 7	Pastores	United Fruit Co	New York via wayports.	February 8	Inapaquina [27]	United Fruit Co	Colon, R. P.
February 7	Camden	United Fruit Co	Curacao, D. W. I.	February 8	Camden	United Fruit Co	Santa Marta via Bocas.
February 8	Iriona	United Fruit Co	Bocas del Toro, R. P.	February 8	Granada	Standard Fruit & S. S. Corp	New Orleans via wayports.
February 8	Wanks	Standard Fruit & S. S. Corp	San Blas, R. P.	February 8	Iriona	United Fruit Co	New Orleans, La.
February 8	Lapland	Red Star Line	New York via wayports.	February 8	Pastores	United Fruit Co	New York via wayports.
February 8	Inapaquina [27]	United Fruit Co	Colon, R. P.	February 8	Lapland	Red Star Line	New York via wayports.
February 9	Inapaquina [27]	United Fruit Co	Colon, R. P.	February 8	Oranian	Leyland Line	Puerto Colombia.
February 9	Anachucuna [27]	United Fruit Co	Colon, R. P.	February 9	Inapaquina [27]	United Fruit Co	Colon, R. P.
February 9	Lizzie D. Peabody [28]	M. P. Martinez	Colon, R. P.	February 9	Midas	Royal Netherlands S. S. Co	Curacao, D. W. I.
February 9	Heredia	United Fruit Co	New Orleans via Habana.	February 9	Venezuela	Royal Netherlands S. S. Co	Pto. Colombia.

[26] Air-mail carrier. [27] Motor boat. [28] Motor schooner.

PORT OF BALBOA.

February 3	S. A. Perkins	James Griffiths & Son	San Francisco, Cal.	February 6	A. B. de Obarrio [29]	Pacific Fruit Co	Panama Bay, R. P.
February 6	A. B. de Obarrio [29]	Pacific Fruit Co	Bayano River, R. P.	February 6	Dos Hermanos [29]	A. Valdez	Panama Bay, R. P.
February 6	Dos Hermanos [29]	A. Valdez	Bayano River, R. P.	February 7	El Colon [29]	H. Elliot	Panama Bay, R. P.
February 6	Cricamola [30]	Chiriqui Land Co	Pto. Armuelles, R. P.	February 8	Ideal [29]	H. Elliot	Panama Bay, R. P.
February 7	El Colon [29]	H. Elliot	Darien, R. P.	February 8	Cricamola [30]	Chiriqui Land Co	Pto. Armuelles, R. P.
February 7	Ideal [29]	H. Elliot	Sambu River, R. P.	February 8	Ginyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
February 8	Ginyo Maru	Nippon Yusen Kaisha	Hongkong, China.				
February 9	Utacarbon	Union Oil Co. of California	Los Angeles, Calif.				

[29] Motor schooner. [30] Motor ship. * Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in January, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of January, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for January, 1928 and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States	82	431,095	335,600	535,604	335,841	$375,862.13	243,406
Europe to west coast Canada:							
British	22	105,873	79,387	128,901	80,019	81,684.23	9,328
Danish	1	5,263	3,368	5,497	3,425	3,789.36	.....
Dutch	4	24,931	19,510	31,773	19,289	23,664.74	7,046
French	2	9,051	7,537	12,140	7,536	9,421.25	6,247
German	1	6,344	3,826	6,753	4,036	4,782.50	5,341
Italian	2	10,054	8,395	12,550	7,696	9,254.36	3,293
Norwegian	1	4,230	2,717	4,341	2,723	3,396.25	6,828
Swedish	4	18,477	14,643	23,046	17,413	14,779.96	.....
United States	1	5,099	4,273	6,965	4,282	5,341.25	8,663
Totals	38	189,322	143,656	231,966	146,419	156,113.90	46,746
East coast of United States to west coast of South America:							
British	8	42,352	34,707	59,701	36,561	32,740.38	5,234
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,847
German	1	1,167	998	1,428	813	1,247.50	864
Norwegian	2	7,895	6,296	10,247	6,299	5,682.96	.....
Panaman	1	4,897	4,014	6,386	4,067	5,017.50	1,773
Swedish	3	10,430	8,793	32,276	9,816	8,053.99	521
United States	14	66,033	54,377	92,924	54,042	52,908.21	16,830
Totals	30	137,477	112,651	210,272	115,574	109,983.04	28,069
Europe to west coast of South America:							
Belgian	1	4,792	4,142	6,512	4,038	3,450.24	.....
British	6	28,062	23,372	37,142	23,186	27,878.89	18,120
Danzig	1	6,338	5,236	8,956	5,041	4,563.36	.....
Dutch	3	13,207	9,706	16,025	9,287	12,132.50	8,796
French	1	4,441	3,264	5,384	3,231	4,080.00	3,037
German	3	15,117	11,537	18,489	11,328	14,421.25	14,362
Greek	3	10,621	8,390	12,811	7,683	7,701.36	.....
Italian	3	15,614	13,480	20,890	13,148	14,584.50	2,558
Norwegian	1	3,965	2,637	4,436	2,664	3,296.25	6,999
Peruvian	1	144	132	259	128	103.68	.....
Spanish	1	3,844	3,017	5,205	3,226	3,771.25	180
Swedish	2	7,890	6,846	11,551	7,523	5,680.80	.....
Totals	26	114,035	91,759	147,660	90,483	101,664.08	54,052
Europe to west coast United States:							
British	9	38,115	30,272	50,665	30,727	28,216.91	7,123
Danish	3	16,024	11,135	18,256	11,220	11,537.28	.....
French	2	9,479	7,812	12,592	7,788	8,271.91	9,019
German	4	18,971	14,416	23,637	14,318	16,567.01	12,490
Norwegian	3	15,679	12,096	19,486	12,031	13,215.59	6,460
Swedish	1	5,533	3,430	5,554	4,225	4,287.50	5,665
Totals	22	103,801	79,161	130,190	80,309	82,096.20	40,757
East coast of United States to Far East:							
British	5	26,082	15,289	24,723	15,217	19,111.25	26,926
Danish	1	4,418	3,585	5,702	3,583	4,481.25	6,000
German	2	7,048	4,866	8,214	4,816	6,082.50	8,321
Japanese	4	20,153	17,290	25,296	16,847	21,458.25	25,043
Norwegian	3	14,613	8,476	14,413	8,532	10,595.00	21,902
United States	5	28,503	19,128	31,078	19,053	23,910.00	44,658
Totals	20	100,817	68,634	109,426	68,048	85,638.25	132,850

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Cristobal, C. Z., to west coast of South America:							
Colombian	3	911	843	1,517	845	$1,053.75	1,047
Dutch	1	742	294	780	323	367.50	61
German	5	3,889	2,980	5,268	3,034	3,725.00	1,286
Peruvian	1	2,405	989	3,305	1,514	1,236.25	261
United States	1	5,139	4,476	7,117	4,498	3,700.08	.....
Totals	11	13,086	9,582	17,987	10,214	10,082.58	2,655
East coast of United States to Australasia:							
British	6	31,202	20,053	32,543	20,182	25,066.25	31,759
United States	2	9,982	7,347	11,754	7,347	9,183.75	9,933
Totals	8	41,184	27,400	44,297	27,529	34,250.00	41,692
Cristobal, C. Z., to west coast of Central America:							
British	4	3,811	3,389	5,914	3,354	4,215.15	3,769
German	1	1,041	517	1,153	556	646.25	1,680
Norwegian	2	1,498	1,309	2,485	1,374	1,636.25	2,537
Totals	7	6,350	5,215	9,552	5,284	6,497.65	7,986
Europe to Australasia:							
British	7	51,602	36,823	61,567	38,270	46,028.75	49,078
Foreign vessels in ballast—U. S. intercoastal:							
British	4	23,435	19,577	34,199	20,412	16,873.20	.....
French	1	5,072	4,392	6,795	4,094	3,651.84	.....
Totals	5	28,507	23,969	40,994	24,506	20,525.04	.....
East coast of United States to Philippine Islands:							
British	1	6,152	3,491	6,734	3,656	4,363.75	7,029
Danish	1	2,562	2,085	2,480	1,471	2,606.25	3,750
United States	2	11,782	10,008	12,807	9,079	12,510.00	14,175
Totals	4	20,496	15,584	22,021	14,206	19,480.00	24,954
Central American intercoastal:							
Danish	2	3,439	2,921	4,650	2,823	3,651.25	3,991
Norwegian	1	987	964	1,581	977	1,184.40	1,087
Panaman	1	1,742	1,560	2,802	1,519	1,950.00	2,069
Totals	4	6,168	5,445	9,033	5,319	6,785.65	7,147
East coast of Central America to west coast United States:							
United States	4	9,210	8,478	13,558	8,403	10,544.45	2,773
East coast of United States to west coast of Canada:							
British	1	7,401	5,533	9,002	5,566	5,328.72	.....
United States	2	10,105	7,311	11,718	7,299	9,138.75	14,391
Totals	3	17,506	12,844	20,720	12,865	14,467.47	14,391
East coast of United States to Hawaiian Islands:							
United States	3	9,320	7,898	12,867	7,910	9,872.50	13,743
East coast of Canada to Australasia:							
British	3	12,506	9,895	16,395	10,023	12,368.75	9,768
South American intercoastal:							
British	1	806	424	944	482	530.00	115
Colombian	1	307	302	405	308	368.40	411
Peruvian	1	2,959	1,515	4,617	2,427	1,893.75	244
Totals	3	4,072	2,241	5,966	3,217	2,792.15	770
Africa to west coast Canada:							
British	3	13,198	10,168	16,235	10,096	9,502.56	.....
Around the world:							
United States	2	16,966	12,433	21,118	12,400	15,541.25	9,436
West Indies to west coast of United States:							
British	1	2,207	1,239	2,338	1,249	1,548.75	4,270
United States	1	344	378	571	388	283.50	.....
Totals	2	2,551	1,617	2,909	1,637	1,832.25	4,270

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West Indies to west coast of South America:							
Greek	2	8,639	5,905	9,575	5,653	$6,220.08	
East coast of South America to west coast Canada:							
Norwegian	1	4,375	2,431	4,000	2,485	3,038.75	2,259
United States	1	5,014	3,508	5,550	3,533	4,385.00	1,484
Totals	2	9,389	5,939	9,550	6,018	7,423.75	3,743
Cristobal, C. Z., to west coast United States:							
Panaman	1	2,603	1,383	2,461	1,384	1,728.75	2,852
United States	1	5,199	4,315	7,059	4,349	3,743.28	
Totals	2	7,802	5,698	9,520	5,733	5,472.03	2,852
Europe to west coast Central America:							
German	2	3,997	2,581	4,558	2,616	3,226.25	6,722
Canadian intercoastal:							
British	1	4,071	3,116	4,896	3,136	3,895.00	7,056
East coast of Canada to west coast United States:							
British	1	4,649	3,926	7,115	3,943	3,347.28	
East coast of Canada to west coast Cen. America:							
German	1	1,469	1,155	1,930	1,128	1,057.68	
East coast of Central America to Balboa, C. Z.:							
British	[1] 1					2,400.00	
East coast of Central America to west coast South America:							
Norwegian	1	887	773	1,143	681	966.25	1,428
East coast of South America to Far East:							
Japanese	1	7,354	5,958	9,455	5,902	7,447.50	3,476
Africa to west coast United States:							
British	1	4,061	3,197	5,275	3,195	2,923.92	
Africa to west coast of South America:							
British	1	4,095	3,219	5,285	3,208	2,948.40	
Grand totals, Jan., 1929	303	1,385,682	1,062,520	1,748,639	1,069,746	1,179,256.79	759,820
Grand totals, Jan., 1928	285	1,287,487	998,787	1,616,531	998,084	1,109,055.44	641,708
Grand totals, Jan., 1927	238	1,144,034	893,367	1,445,479	889,045	1,019,164.68	739,900

[1] Naval vessel of 4,800 displacement tons.

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	84	437,801	338,713	544,331	338,148	$423,218.60	651,649
West coast Canada to Europe:							
British	39	188,475	138,026	221,100	136,318	172,532.50	296,632
Dutch	3	17,397	12,765	21,220	12,460	15,956.25	29,854
French	1	4,932	4,219	6,669	4,224	5,273.75	7,614
German	3	19,854	12,500	21,174	12,678	15,336.25	23,207
Italian	1	6,497	4,905	8,124	5,128	6,131.25	9,500
Norwegian	2	8,713	6,240	8,927	5,543	7,800.00	14,128
Spanish	1	4,512	3,415	5,649	3,373	4,268.75	7,345
Swedish	1	4,029	3,279	5,655	4,150	4,098.75	6,300
United States	2	9,721	7,501	12,282	7,501	9,376.25	15,521
Totals	53	264,130	192,850	310,800	191,375	240,773.75	410,101
West coast of South America to Europe:							
Belgian	1	6,211	4,522	7,130	4,013	5,652.50	9,800
British	5	30,259	23,564	38,450	23,854	29,455.00	37,072
Danzig	1	6,338	5,236	8,956	5,041	6,545.00	11,400
Dutch	2	9,184	4,763	8,213	4,834	5,953.75	10,386
French	2	8,288	6,574	10,785	6,594	8,217.50	14,351
German	5	23,991	16,946	27,800	16,996	21,182.50	37,353
Greek	7	27,137	20,994	31,585	19,806	26,214.35	49,900
Italian	6	29,888	23,131	36,558	22,587	28,712.30	40,908
Norwegian	2	8,956	6,477	10,492	6,394	8,096.25	14,098
Spanish	2	7,112	5,875	10,103	5,954	7,343.75	8,433
Yugoslav	7	28,509	22,160	34,966	22,357	27,700.00	54,339
Totals	40	185,873	140,242	225,038	138,430	175,072.90	288,040

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to east coast United States:							
British	11	49,020	36,125	60,184	36,959	$45,156.25	80,142
Chilean	2	7,735	6,033	10,874	6,233	7,541.25	9,066
German	1	909	689	1,314	681	861.25	324
Norwegian	3	13,025	10,544	16,947	10,547	13,180.00	25,937
Peruvian	1	1,529	1,483	2,155	1,169	1,834.80	2,384
Swedish	2	5,934	5,050	16,939	5,431	6,312.50	22,026
United States	13	61,043	49,736	84,148	49,261	62,050.30	129,629
Totals	33	139,195	109,660	192,561	110,281	136,936.35	269,508
West coast of United States to Europe:							
Belgian	1	4,976	4,568	7,138	3,988	5,710.00	9,600
British	11	53,475	42,842	69,509	42,853	53,552.50	81,345
Danish	1	5,695	4,728	7,691	4,713	5,910.00	11,259
French	2	9,685	8,380	13,488	7,477	10,475.00	18,877
German	2	8,319	7,118	12,075	6,790	8,897.50	16,570
Japanese	1	4,665	4,268	5,831	4,227	5,335.00	7,709
Norwegian	5	23,256	19,976	33,636	19,849	24,970.00	45,598
Swedish	1	5,661	3,406	5,642	4,320	4,257.50	7,591
United States	1	5,841	3,582	5,871	3,530	4,477.50	8,909
Totals	25	121,573	98,868	160,881	97,747	123,585.00	207,458
West coast of South America to Cristobal, C. Z.:							
British	2	2,554	1,913	3,422	1,930	2,391.25	594
Colombian	3	411	390	647	384	479.30	759
Dutch	2	1,484	588	1,560	646	735.00	1,572
German	5	4,232	2,879	5,398	2,974	3,598.75	3,727
Norwegian	2	1,110	908	1,587	873	1,135.00	1,565
Peruvian	2	5,364	2,504	7,922	3,941	3,130.00	4,349
Totals	16	15,155	9,182	20,536	10,748	11,469.30	12,566
Australasia to Europe:							
British	9	71,674	48,212	78,110	48,490	60,265.00	61,593
West coast of Central America to Cristobal, C. Z.:							
British	3	2,063	1,900	3,436	1,936	2,375.00	2,580
Norwegian	2	1,784	1,648	3,260	1,784	1,672.24	715
Panaman	1	1,742	1,560	2,802	1,519	1,254.24	.....
Totals	6	5,589	5,108	9,498	5,209	5,301.48	3,295
Australasia to east coast of Canada:							
British	5	22,501	17,537	28,850	17,685	21,921.25	12,401
Philippine Islands to east coast United States:							
Danish	1	4,066	3,142	5,177	3,199	3,927.50	7,365
Japanese	3	15,665	13,539	20,348	13,110	16,744.00	25,522
United States	1	5,906	5,469	6,959	5,438	6,836.25	8,023
Totals	5	25,637	22,150	32,484	21,747	27,507.75	40,910
West coast of United States to east coast Central America:							
United States	4	8,984	8,359	13,482	8,211	10,395.70	4,265
West coast of Canada to east coast United States:							
British	2	8,705	5,996	9,680	5,984	7,495.00	13,480
United States	2	7,081	5,595	9,073	5,585	6,993.75	9,990
Totals	4	15,786	11,591	18,753	11,569	14,488.75	23,470
Far East to Europe:							
British	1	5,062	3,186	5,150	3,150	3,982.50	8,000
Norwegian	2	9,344	4,986	8,658	5,017	6,232.50	14,040
Totals	3	14,406	8,172	13,808	8,167	10,215.00	22,040
Far East to east coast United States:							
British	1	6,287	5,366	8,782	5,144	6,707.50	12,030
Japanese	1	4,772	3,533	5,642	3,452	4,416.25	6,557
Totals	2	11,059	8,899	14,424	8,596	11,123.75	18,587

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West coast United States to Cristobal, C. Z.:							
French	[1]1					$6,597.50	
United States	1	5,199	4,315	7,059	4,349	5,393.75	11,000
Totals	2	5,199	4,315	7,059	4,349	11,991.25	11,000
West coast of Canada to West Indies:							
Danish	1	1,355	1,102	1,806	1,099	1,377.50	2,584
West coast of Central America to Europe:							
Spanish	1	3,357	2,672	4,324	2,673	3,340.00	5,000
West coast South America to Egypt:							
Yugoslav	1	4,536	3,547	5,635	3,537	4,433.75	8,471
West coast of South America to east coast Canada:							
British	1	5,042	4,355	7,259	4,414	5,443.75	9,553
West coast of United States to West Indies:							
Dutch	1	5,065	4,540	7,412	4,235	5,675.00	8,890
Canadian intercoastal:							
British	1	4,182	3,318	5,757	3,554	4,147.50	5,964
West coast of South America to West Indies:							
Dutch	1	6,653	4,250	6,899	4,417	5,312.50	9,790
Australasia to east coast of United States:							
British	1	6,140	5,156	8,287	5,155	6,445.00	4,549
Far East to West Indies:							
Norwegian	1	4,706	2,494	4,301	2,519	3,117.50	7,331
Grand totals, Jan., 1929	300	1,385,598	1,055,292	1,722,295	1,052,355	1,323,558.33	2,099,015
Grand totals, Jan., 1928	255	1,135,283	886,265	1,447,737	886,454	1,103,697.06	1,730,353
Grand totals, Jan., 1927	205	977,597	778,421	1,262,429	777,602	965,596.03	1,501,865

[1] Naval vessel of 13,195 displacement tons.

Traffic by Nationality for January, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of January, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with corresponding totals for January, 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	4,792	4,142	6,512	4,038	$3,450.24	
British	[1]86	409,680	307,077	509,574	312,482	330,972.14	179,575
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,847
Colombian	4	1,218	1,145	1,922	1,153	1,422.15	1,458
Danish	8	31,706	23,094	36,585	22,522	26,065.39	13,741
Danzig	1	6,338	5,236	8,956	5,041	4,563.36	
Dutch	8	38,880	29,510	48,578	28,899	36,164.74	15,903
French	6	28,043	23,005	36,911	22,649	25,425.00	18,303
German	20	59,043	42,876	71,430	42,645	51,755.94	51,066
Greek	5	19,260	14,295	22,386	13,336	13,921.44	
Italian	5	25,668	21,875	33,440	20,844	23,838.86	5,851
Japanese	5	27,507	23,248	34,751	22,749	28,905.75	28,519
Norwegian	15	54,127	37,699	62,132	37,766	43,011.70	49,500
Panaman	3	9,242	6,957	11,649	6,970	8,696.25	6,694
Peruvian	3	5,508	2,636	8,181	4,069	3,233.68	505
Spanish	1	3,844	3,017	5,295	3,226	3,771.25	180
Swedish	10	42,330	33,712	72,427	38,977	32,802.25	6,186
United States	121	613,791	479,530	770,690	478,424	536,924.15	379,492
Totals, January, 1929	303	1,385,682	1,062,520	1,748,639	1,069,766	1,179,256.79	759,820
Totals, January, 1928	285	1,287,487	998,787	1,616,531	998,084	1,109,055.44	641,708
Totals, January, 1927	238	1,144,034	893,367	1,445,479	889,045	1,019,164.68	739,900

[1] Includes naval vessel of 4,800 displacement tons, paying tolls at 50 cents per displacement ton.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	2	11,187	9,090	14,268	8,001	$11,362.50	19,400
British	92	455,439	337,496	547,976	337,396	421,870.00	625,935
Chilean	2	7,735	6,033	10,874	6,233	7,541.25	9,066
Colombian	3	411	390	647	384	479.30	759
Danish	3	11,116	8,972	14,674	9,011	11,215.00	21,208
Danzig	1	6,338	5,236	8,956	5,041	6,545.00	11,400
Dutch	9	39,783	26,906	45,304	26,592	33,632.50	60,492
French	[1]6	22,905	19,173	30,942	18,295	30,563.75	40,842
German	16	57,305	40,132	67,761	40,119	49,876.25	81,181
Greek	7	27,137	20,994	31,585	19,806	26,214.35	49,900
Italian	7	36,385	28,036	44,682	27,715	34,843.55	50,408
Japanese	5	25,102	21,340	31,821	20,789	26,495.25	39,788
Norwegian	19	70,894	53,273	87,808	52,526	66,203.49	123,412
Panaman	1	1,742	1,560	2,802	1,519	1,254.24	.....
Peruvian	3	6,893	3,987	10,077	5,110	4,964.80	6,733
Spanish	4	14,981	11,962	20,076	12,000	14,952.50	20,778
Swedish	4	15,624	11,735	28,236	13,901	14,668.75	35,917
United States	108	541,576	423,270	683,295	422,023	528,742.10	838,986
Yugoslav	8	33,045	25,707	40,601	25,894	32,133.75	62,810
Totals, January, 1929	300	1,385,598	1,055,292	1,722,295	1,052,355	1,323,558.33	2,099,015
Totals, January, 1928	255	1,135,283	886,265	1,447,737	886,454	1,103,697.06	1,730,353
Totals, January, 1927	205	977,597	778,421	1,262,429	777,602	965,596.03	1,501,865

[1] Includes naval vessel of 13,195 displacement tons, paying tolls at 50 cents per displacement ton.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	3	15,979	13,232	20,780	12,039	$14,812.74	19,400
British	[1]178	865,119	644,573	1,057,550	649,878	752,842.14	805,510
Chilean	3	12,440	9,499	18,184	10,209	11,873.75	11,913
Colombian	7	1,629	1,535	2,569	1,537	1,901.45	2,217
Danish	11	42,822	32,066	51,259	31,533	37,280.39	34,949
Danzig	2	12,676	10,472	17,912	10,082	11,108.36	11,400
Dutch	17	78,663	56,416	93,882	55,491	69,797.24	76,395
French	[2]12	50,948	42,178	67,853	40,944	55,988.75	59,145
German	36	116,348	83,008	139,191	82,764	101,632.19	132,247
Greek	12	46,397	35,289	53,971	33,142	40,135.79	49,900
Italian	12	62,053	49,911	78,122	48,559	58,682.41	56,259
Japanese	10	52,609	44,588	66,572	43,538	55,401.00	68,307
Norwegian	34	125,021	90,972	149,940	90,292	109,215.19	172,912
Panaman	4	10,984	8,517	14,451	8,489	9,950.49	6,694
Peruvian	6	12,401	6,623	18,258	9,179	8,198.48	7,238
Spanish	5	18,825	14,979	25,281	15,226	18,723.75	20,958
Swedish	14	57,954	45,447	100,663	52,878	47,471.00	42,103
United States	229	1,155,367	902,870	1,453,895	900,447	1,065,666.25	1,218,478
Yugoslav	8	33,045	25,707	40,601	25,894	32,133.75	62,810
Totals, January, 1929	603	2,771,289	2,117,812	3,479,934	2,122,121	2,502,815.12	2,858,835
Totals, January, 1928	540	2,422,770	1,885,052	3,064,268	1,884,538	2,212,752.50	2,372,061
Totals, January, 1927	443	2,121,631	1,671,788	2,707,908	1,666,647	1,984,760.71	2,241,765

[1] Includes naval vessel of 4,800 displacement tons, paying tolls at 50 cents per displacement ton.
[2] Includes naval vessel of 13,195 displacement tons, paying tolls at 50 cents per displacement ton.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

United States Intercoastal Traffic by Commodities for January, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for January, 1929, and the totals for January, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the destination of "General Cargo." These statistics are accordingly not precise but they are indicative of the kind and quantity of the cargo in transit through the Canal. The figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Acroplanes	58	.....	58
Agricultural implements	1,648	13	1,661
Alfalfa	.....	154	154
Alfalfa meal	.....	1,021	1,021
Ammonia	107	.....	107
Ammunition	29	.....	29
Asbestos	90	.....	90
Asphalt	225	236	461
Automobiles	677	25	702
Automobile accessories	155	18	173
Bamboo	.....	23	23
Beans	37	8,934	8,971
Borax	230	700	930
Bricks	412	.....	412
Burlap	11	122	133
Calcium carbide	32	.....	32
Camphor	.....	118	118
Canned goods:			
Fish	1,817	15,633	17,450
Fruit	542	33,735	34,277
Meat	.....	50	50
Milk	71	174	245
Soup	1,748	.....	1,748
Vegetables	1,145	10,603	11,748
Miscellaneous	1,506	11,905	13,411
Carbon black	136	.....	136
Celite filtercel	.....	990	990
Cement	906	.....	906
Charcoal	188	149	337
Chemicals	2,211	603	2,814
China and fire clay	31	.....	31
Coal	4,338	.....	4,338
Cocoa	110	.....	110
Coconuts	.....	160	160
Coffee	124	167	291
Cold storage:			
Cheese	40	1,405	1,445
Lard	33	.....	33
Other	288	.....	288
Confectionery	369	.....	369
Cork	24	.....	24
Corn	.....	255	255
Cotton	226	6,899	7,125
Drugs	1,112	89	1,201
Dyes	121	.....	121
Earthenware	284	14	298
Eggs, dried	.....	73	73
Explosives	.....	20	20
Fertilizer	40	.....	40
Flour	97	7,675	7,772
Fruit:			
Dried	.....	16,505	16,505
Fuller's earth	44	.....	44
Furniture	552	.....	552
General	41,798	15,263	57,061
Glass and glassware	1,417	65	1,482
Glue	.....	26	26
Hair	11	36	47
Hardwoods	1,219	.....	1,219
Hay	.....	704	704
Hemp	53	857	910
Honey	.....	40	40
Hops	.....	5	5
Jute	74	22	96
Lineoleum	1,144	.....	1,144
Liquors	54	.....	54
Lumber	3,333	167,544	170,877
Malt	111	.....	111

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Manufactured goods:			
Iron and steel	121,481	481	121,962
Machinery	8,354	837	9,191
Railroad material	7,260	10	7,270
Tinplate	11,087	.....	11,087
Textiles	2,335	323	2,658
Miscellaneous	7,156	1,786	8,942
Marble	71	.....	71
Matches	140	.....	140
Metals:			
Copper	32	7,375	7,407
Iron	50	.....	50
Lead	117	461	578
Scrap	137	270	407
Tin	.....	224	224
Zinc	50	570	620
Milk, powdered	32	463	495
Molasses	146	.....	146
Musical instruments	29	.....	29
Nitrates	10	.....	10
Nuts	.....	250	250
Oats	52	.....	52
Oils:			
Cottonseed	48	.....	48
Gas oil, fuel oil	.....	20,357	20,357
Gasoline, benzine, and naphtha	.....	271,853	271,853
Kerosene	.....	12,224	12,224
Linseed	29	.....	29
Lubricating and greases	4,651	166	4,817
Vegetable	192	39	231
Other	34	.....	34
Ores:			
Antimony	.....	192	192
Copper	.....	1,152	1,152
Magnesite	.....	946	946
Manganese	63	.....	63
Other	190	.....	190
Paint	535	72	607
Paper	3,746	5,537	9,283
Paper pulp	.....	3,894	3,894
Peanuts	18	172	190
Peas	.....	552	552
Phosphates	1,427	.....	1,427
Porcelain	131	197	328
Rags	61	293	354
Rice	845	22	867
Rope	744	34	778
Rosin	420	.....	420
Rubber:			
Manufactured	918	114	1,032
Scrap	15	225	240
Salt	45	38	83
Sand	28	.....	28
Seeds:			
Grass	.....	88	88
Other	90	53	143
Shells	1,401	55	1,456
Silk	.....	861	861
Skins and hides	.....	1,066	1,066
Soap	1,471	.....	1,471
Soda	294	.....	294
Soda ash	498	.....	498
Soda, bicarbonate	167	.....	167
Soda, caustic	749	.....	749
Starch	47	.....	47
Sugar	22	4,000	4,022
Sulphur	6,886	.....	6,886
Syrup	173	.....	173
Talc	.....	87	87
Tallow	.....	183	183
Tar	39	.....	39
Tea	.....	80	80
Tobacco	1,374	21	1,395
Toys	12	96	107
Turpentine	70	.....	70
Waste	80	266	346
Wax	118	88	206
Wheat	.....	1,375	1,375
Wine	.....	75	75
Wool	.....	1,465	1,465
Totals, January, 1929	257,198	644,018	901,216
Totals, January, 1928	193,346	540,540	733,886
Totals, January, 1927	234,688	627,821	862,509

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending February 2, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Georgie	French Line		January 27		142
Oroona	Pacific Steam Navigation Co		January 27		[2]
Limon	United Fruit Co	January 27	January 27	13½	[2]
Asuka Maru	Nippon Yusen Kaisha	January 27	January 27	130	[2]
Midas	Royal Netherlands S. S. Co	January 27		6	
Camden	United Fruit Co	January 27	January 28	3,785	[2]
Cartago	United Fruit Co		January 28		1
Manizales	North German Lloyd		January 28		250
Nidar	General American S. S. Co	January 27	January 29	1,899	[2]
Losada	Pacific Steam Navigation Co	January 28	January 29	276	215
Orazio	Italian Line	January 28	January 29	10	963
Grootendijk	Holland-American Line	January 28	January 29	355	11
Maravi	United Fruit Co	January 28	January 28	1,409	82
Manaqui	United Fruit Co	January 28	January 29	185	807
Santa Maria	Grace Line	January 28	January 28	22	278
Cali	North German Lloyd	January 28	January 31	847	103
Canadian Constructor	Canadian National Steamships	January 29	January 29	42	[2]
Texas	French Line	January 29	January 29	118	87
Patella	Anglo-Saxon Petroleum Co	January 29	January 31	9,391	[2]
Rhodopis	Hamburg-American Line	January 29	January 31	290	71
Wanks	Standard Fruit & S. S. Corp		January 30		63
Ancon	Panama Railroad S. S. Line	January 30		4,340	
Paul Luckenbach	Luckenbach Line	January 30	January 30	1¾	[2]
William M	R. Feuillebois	January 30	January 30	[1]	28
San Mateo	United Fruit Co	January 30	January 31	906	86
Metapan	United Fruit Co	January 30	January 31	696	545
Iriona	United Fruit Co	January 30	January 31	939	43
Heluan	Hamburg-American Line	January 30	January 30	133	90
Turpin	North German Lloyd	January 30	January 30	[1]	156
Tegucigalpa	United Fruit Co	January 30	February 1	468	623
Cavina	United Fruit Co	January 30	February 1	1	736
Mantaro	Peruvian Line	January 30	February 1	2,178	[2]
Santa Marta	United Fruit Co	January 31	January 31	15	291
Calamares	United Fruit Co	January 31	February 1	1,385	416
Orestes	Royal Netherlands S. S. Co	January 31		30	
Hvoslef	United Fruit Co	January 31	February 1	715	[2]
Baralt	Royal Netherlands S. S. Co	January 31		700	
Jamaica	Pacific Steam Navigation Co	January 31		765	
Arana	Pacific Steam Navigation Co	January 31	February 2	30	195½
Suriname	United Fruit Co	February 1	February 1	85	213
Wanks	Standard Fruit & S. S. Corp	February 1		60	
Barneveld	Royal Netherlands S. S. Co	February 1		325	
Wiegand	Roland Line	February 1	February 2	251	128½
Delilian	Leyland Line	February 1	February 2	534	[2]
Ebro	Pacific Steam Navigation Co	February 1	February 2	278	12½
Guatemala	Panama Mail S. S. Co	February 2		441	
Linda S	R. Feuillebois	February 2	February 2	[1]	45
Annam	Danish East Asiatic S. S. Line	February 2		188	
Notre Dame de Fourviere	French Line	February 2		91	
Arizona	French Line	February 2		97	

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending February 9, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Lagarto	Pacific Steam Navigation Co	January 24	February 1	534	49
Asuka Maru	Nippon Yusen Kaisha	January 26	January 27	23	
Caldas	National Navigation Co	January 26	January 27		34
Fort Armstrong	Charles Nelson & Co	January 27	January 28	320	
Santa Maria	Grace Line	January 27	January 28	6	
Losada	Pacific Steam Navigation Co	January 29	January 30	119	118
Bridge	U. S. Navy	January 29		193	
Canada	Johnson Line	February 1	February 1	33	
Arana	Pacific Steam Navigation Co	February 2	February 2		327
City of San Francisco	Panama Mail S. S. Co	February 3	February 4	38	
S. A. Perkins	James Griffiths & Sons	February 3		6,392	
Borga	F. Olsen & Co	February 2	February 6	898	
Annam	East Asiatic Co	February 3	February 4	263	
Guatemala	Grace Line	February 4	February 5	17	1
Glenbeath	Waverly S. S. Co	February 7	February 7	369	
Ludwigshafen	Roland Line	February 7	February 9	104	
Colombia	Panama Mail S. S. Co	February 7	February 8	144	30
Ginyo Maru	Nippon Yusen Kaisha	February 8	February 8	62	
President Johnson	Dollar Line	February 9	February 9		31

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 5	$8.00	$11.00
For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 6, per ton of 2,240 pounds	11.00	14.00

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., February 20, 1929. No. 29.

Canal Traffic During the First Fifteen Days of February.

During the first 15 days of February, 285 commercial vessels and 7 small launches transited the Canal. Tolls on the commercial vessels aggregated $1,222,245.97, and on the launches, $37.95, or a total tolls collection of $1,222,283.92.

The daily average of transits of commercial vessels was 19 and the average tolls collection, $81,483.06. The average amount of tolls paid by each of the commercial transits was $4,288.58, as compared with $4,124.70 for the first 15 days of January.

The total number of commercial transits for the first 15 days of February were 4 fewer than those passing through during the first 15 days of January, while the tolls collected in the first 15 days of the current month were slightly higher than the tolls paid in the first half of January.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 7½ months of the current fiscal year, with the daily averages of transits and tolls:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January	603	2,502,815.12	19.45	80,735.97
February (first 15 days)	285	1,222,245.97	19.00	81,483.06
Totals	4,073	17,088,356.32	17.71	74,297.20

"President Johnson" on First Voyage in Dollar Line Service Around the World.

The *President Johnson*, around-the-world steamer of the Dollar Steamship Line, transited the Canal from the Atlantic to the Pacific on February 9, 1929, on her first voyage in this run. The *President Johnson* was formerly the *Manchuria* of the Panama-Pacific Line and was sold to the Dollar Line when the Panama-Pacific Line placed the new turbo-electric liner *Virginia* in its intercoastal service.

Announcement of the proposed expansion of the Dollar Line around-the-world service appeared in THE PANAMA CANAL RECORD of December 12, 1928.

Notice to Mariners.

New Light on Margarita Island, Venezuela.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *February 14, 1929.*

No. 512.

The master of the steamship *Columbus* reports a new light on the northeast corner of Margarita Island, Venezuela. Characteristics, two flashes every 15 seconds, visible 30 miles. (This light is presumably on Cabo de la Isla), approximate position **11° 10′ north, 64° 53″ west, according to H. O. Chart No. 2035.**

H. BURGESS, *Governor.*

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 16, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Chilore	9	14.45	10	6.15	10	13 51	10	14.50	American	Ore S. S. Corp	549.0	72.0	24.7	Baltimore, Md	Cruz Grande, Chile	Ballast		14,538	9,348
Leikanger	9	15.18	10	6.15	10	16.44	10	17.59	Norwegian	Westfal, Larsen & Co	375 0	52.0	21.0	Buenos Aires, Arg	Vancouver, B. C	General	3,959	5,953	4,354
Castletown	9	20.45	10	6.30	10	16.48	13	10.59	American	Charles Nelson & Co	321.7	50.0	19 6	Baltimore, Md	Seattle, Wash	General	2,698	3,872	2,568
Rialto [2]	9	00.55	10	7.25	10	17.41	10	18.49	Italian	Nav. Libera-Triestina	447 9	55.3	16.2	Trieste, Italy	Vancouver, B. C	General	1,845	7,789	6,025
British Glory [1 2]	9	16.00	10	7.25	10	18.50	10	20.02	British	British Tankers Co	435.0	57.3	20.6	No. Shields, Eng	San Luis, Calif	Ballast			
Oropesa	9	19.30	10	8.25	10	15.40	10	16.40	British	Pacific Steam Nav. Co	530.0	66.0	25.6	Liverpool, England	Talcahuano, Chile	General	5,254	14,827	10,630
Cities Service Empire [1]	9	16.45	10	8.30	10	20.07	10	21.32	American	Cities Service Corp	464.7	60.2	20.6	New York, N. Y	Los Angeles, Calif			8,561	5,997
Dinteldijk [2]	9	9.00	10	10.00	10	21.10	11	00.15	Dutch	Holland-American Line	485.0	62.0	23.6	Rotterdam, Holland	Vancouver, B. C	General, bananas	4,879	10,786	7,551
Hampton Roads [1]	9	18.35	10	11.05	10	22.21	10	23.15	American	Atlantic Refining Co	431.0	59.2	19.0	Philadelphia, Pa	La Libertad, E'dor	Ballast		8,093	5,347
Britte	10	4.35	10	11.05	10	18.55	10	20.45	Swedish	Colombian Mari. Co	256.0	39.6	13.3	New York, N. Y	Buenaventura, Col	General	567	1,714	1,078
British Justice [1 2]	9	18.55	10	12.35	10	23.29	11	00.45	British	British Tankers Co	440.7	57.1	19.0	Falmouth, England	Los Angeles, Calif	Ballast			
Cali	8	21.00	10	13.50	10	22.35	10	23.59	German	North German Lloyd	216 5	32.9	14.3	Cristobal, C. Z	Buenaventura, Col	General	615	1,105	698
Saramacca	10	00.15	10	13.50	11	00.35	11	9.41	American	United Fruit Co	336.7	42 0	19.3	Port Limon, C. R	San Francisco, Cal	Bananas, cocoa	789	3,668	2,308
Oregonian	9	20.10	10	15.20	11	00.42	13	11.10	American	Amer.-Hawaiian Line	404.6	53.9	19.8	Boston, Mass	Portland, Oreg	General	3,879	6,754	4,800
Canadian Importer	9	22.30	10	16 00	11	1.49	11	3.00	British	Can. Nat. Steamships	400 0	52 0	21.2	Halifax, N. S	Vancouver, B. C	General	5,100	5,891	4,186
Dixie Arrow [2]	10	4.30	10	17.30	11	2.50	11	4.30	American	Standard Oil Co	468.3	62.7	21.0	Boston, Mass	Los Angeles, Calif	Ballast		9,744	7,140
Charles H. Cramp	10	14.15	10	18.45	11	4.12	11	8 00	American	Isthmian S. S. Lines	494.6	53.9	28.9	Baltimore, Md	Vancouver, B. C	Steel, general	8,237	6,755	4,750
Cape Comorin	10	14.55	10	19.05	11	4.49	11	10.51	British	Chile Exploration Co	400.0	53.5	23.0	Grangemouth, Eng	San Antonio, Chile	Coke	5,104	6,246	4,499
Salt River No. 1 [3]			10		10	16.20			American	United Fruit Co				Cristobal, C. Z	Gatun, C. Z	Ballast		14	14
Salt River No. 8 [3]			10		10	16.20			American	United Fruit Co				Cristobal, C. Z	Gatun, C. Z	Ballast		14	14
Point Montara	10	20.05	11	6.35	11	15 20	11	16 30	American	Gulf-Pacific Line	324.0	46 2	22 9	New Orleans, La	Vancouver, B. C	General	4,315	3,984	2,612
Willaston	11	6.35	11	7.35	11	15.26	11	19.40	British	John Edgar & Co	400.0	52.0	21.0	New York, N. Y	Noumea, N. Calid	General	7,133	5,701	4,126
Sinnington Court	11	7.25	11	8.15	11	16 54	12	7.00	British	Haldin & Co	420.0	56.5	14.0	Newcastle, Eng	Vancouver, B. C	Ballast		6,967	4,933
Birkenhead [1]	11	7.48	11	8.40	11	17.55	11	19 03	American	Acawood Pet. Sales Co	425.0	57.2	21 0	Mobile, Ala	Los Angeles, Calif	Ballast		7,502	4,982
Dartford [1]	11	4.00	11	9 55	11	19.02	11	20.15	American	Gladstone Transp. Co	391 9	51.2	18.0	New Orleans, La	Los Angeles, Calif	Ballast			
S-1 [4]			11	10 00	11	19.06			American	U. S. Navy	219 3	20.8		Cristobal, C. Z	Balboa, C. Z				
S-11 [4]			11	10 00	11	19.06			American	U. S. Navy	219 3	20.8		Cristobal, C. Z	Balboa, C. Z				
Victolite [1 2]	11	7.55	11	11.05	11	20 18	11	21.23	British	Imperial Oil Co., Ltd	510.0	68 2	21 0	New York, N. Y	Talara, Peru	Ballast		11,575	7,648
Rimutaka	11	7.30	11	14 30	11	22.04	12	4.34	British	N. Z. Shipping Co	457.0	58.0	26.8	London, England	Timaru, N. Z	General	4,145	9,201	6,961
Smyrna	10	9 45	11	15.15	11	22.10	11	23.15	German	North German Lloyd	250.5	37.1	14.11	Hamburg, Germany	Champerico, Guat	General	176	1,714	933

[1] Tanker. [2] Motor ship. [3] Barge [4] Submarine.

Centaurus	11	15.00	11	15.15	11	23.23	12	00.22	American	N. Y. & S A. Line	409.8	54.2	23.0	New York, N. Y.	San Antonio, Chile	General	5,212	6,581	4,795
Chattanooga City	11	15.55	11	17.45	12	00.57	12	8.10	American	Norton, Lilly & Co	424.0	56.0	25.0	Houston, Texas	Shanghai, China	Steel, general	8,036	7,611	5,450
Saxonstar	11	18 30	11	18.55	12	3.04	12	17.15	British	Blue Star Line	435.0	54.0	18.6	Glasgow-England	Seattle, Wash	Ballast			
Eagle No. 35 [5]	12	00.50	12	6.00	12	12.58			American	U. S. Navy	200.9	25.0	12.0	Cristobal, C. Z	Balboa, C. Z				
Eagle No. 58 [5]	12	00.50	12	6.00	12	12.58			American	U. S. Navy	200.9	25.0	12.0	Cristobal, C. Z	Balboa, C. Z				
Fishpool	12	6.35	12	7.30	12	16.34	12	17.50	British	Sir. R. Ropner & Co	379.0	56.0	22.6	Antwerp, Belgium	Los Angeles, Calif	Cement clinkers	6,041	5,487	4,122
Herman Frasch	12	8.40	12	9.00	12	18.07	12	19.30	American	Texas Gulf Sulphur Co	356.0	51.6	26.0	Galveston, Texas	Bellingham, Wash	Crude sulphur	6,300	5,349	2,950
Eurypylus	12	6.55	12	11.15	12	18.55	12	20.36	British	Alfred Holt & Co	430.0	54.0	28 0	Liverpool, England	Dairen, China	General	6,082	6,887	4,612
Denderah	11	10.15	12	12.10	12	19.58	14	12.00	German	Hamburg-AmericanLine	360.6	51.1	23.0	Hamburg,Germany	Valparaiso, Chile	General	4,065	4,924	3,524
Victorious	12	12.25	12	13.15	12	21.36	12	22 36	American	Tampa-Interocean Co	440 1	56.0	26.0	New Orleans, La	Iloilo, P. I	General, oils, etc	7,561	8,328	6,036
Laguna [2]	12	3.55	12	14.30	12	22.04	13	3.17	British	Pacific Steam Nav. Co	420.5	54 2	20.0	Glasgow-England	Corral, Chile	General, coke	5,472½	7,139	4,640
Storviken	12	15.20	12	15.45	12	23.20	13	00.22	Norwegian	Canadian Transp. Co	389.0	53.2	19 0	Corner Brook, N. F	Seattle, Wash	Paper, sugar	3,849		
Abodi Mendi	12	15.45	12	17.00	13	11.39	13	12.45	Spanish	Baburizza & Luckin'vik	400.0	53.0	14 0	Barry Docks, Eng	Arica, Chile	Ballast			
Chelatros	12	17.25	12	18.20	13	12.45	13	14.25	Greek	Cassos Steam Nav. Co	360.0	52.0	13.6	Amst'dam, Holland	Arica, Chile	Ballast		4,715	3,384
Tut [6]			12		12	13.01			American	J. J. Barton				Cristobal, C. Z	Gatun, C. Z			1	1
La Plata Maru [2]	12	17.00	13	6.10	13	13.58	13	15.00	Japanese	Osaka Shosen Kaisha	430 0	56.0	21.0	Buenos Aires, Arg	Kobe, Japan	General	2,390	7,875	5,821
Zealandic [2]	12	18.50	13	7.15	13	15.00	13	23.27	British	Shaw, Savill & Albion	482.0	64.0	19.0	London, England	New Zealand	Ballast		11,519	8,367
R. J. Hanna [4]	12	19.55	13	8.35	13	16.00	13	17.05	American	Standard Oil Co	435.0	56.2	17.0	New York, N. Y.	San Francisco, Cal.	Ballast		7,633	5,206
Esperanza [7]	12	22.25	13	10.00	13	18.13	13	19.30	Norwegian	Lars Thorsen	339.7	44.0	23.0	Newport News, Va	Magdalena Bay	Coal	1,478		
Olovsborg	12	23.05	13	10.45	13	19.15	13	20.15	Finnish	J. A. Zachariassen	425.0	56 0	27.0	Liverpool, England	Hakodate, Japan	Salt	8,450	7,565	5,259
Levant Arrow [2]	12	23.28	13	12.30	13	20.14	13	21.25	American	Standard Transp. Co	468 3	62 7	18.6	New York, N. Y.	Los Angeles, Calif	Ballast		9,841	6,985
Californian [2]	13	3.55	13	13.20	13	21.12	13	23.06	American	Amer.-Hawaiian Line	445.0	59.8	20.0	Boston, Mass	Seattle, Wash	General	2,773	8,567	6,020
Teno	13	5.05	13	14.20	13	22.25	13	23 27	Chilean	South American Line	421.8	56.0	25.6	New York, N. Y.	Valparaiso, Chile	General	2,237	7,764	4,672
Maple Branch	13	9.35	13	14.32	13	23.23	14	00.35	British	F. & W. Ritson	400.0	52.0	21.0	Newcastle, Eng	Valparaiso, Chile	General	3,231½	5,618	4,116
Fianona	13	8.05	13	15.45	14	00.35	14	2.10	Italian	Garibaldi Corporation	438.0	56.0	17.0	Genoa, Italy	Los Angeles, Calif	Ballast			
W. S. Rheem	13	12.00	13	15.50	14	1.45	14	2.40	American	Standard Oil Co	500.0	68.2	17.0	Baltimore, Md	Los Angeles, Calif	Ballast		11,224	7,895
Katrina Luckenbach	13	15.20	13	16.45	14	2.25	14	4.00	American	Luckenbach Line	446.0	56.0	25.0	New York, N. Y.	Tacoma, Wash	General	7,586	8,508	6,179
Tilthorn	13	16.40	13	17.20	14	3.45	14	5.15	Norwegian	Grace Line	420 0	54.0	15.0	New Orleans, La	Iquique, Chile	Ballast		6,591	4,730
Empire Arrow [1]	13	20.05	13	20.37	14	4.45	15	6.00	American	Standard Transp. Co	468.0	62 0	27.6	Beaumont, Texas	Dairen, China	Kerosene	11,714	9,841	6,946
Neches [1]			14	7.30	14	17.40			American	U. S. Navy	477.0	55.0		Gatun Lake, C. Z.	Balboa, C. Z				
Caldas [2]	9	13.30	14	6.12	14	18 44	14	22.30	Colombian	National Navigation Co.	116.0	21.0	9.0	Cristobal, C. Z	Buenaventura, Col.	General	275	211	124
Tahoe [8]	12	11.55	14	6.20	14	17 42	18	10.04	American	U. S. Treasury Dept	250.0	42.0	15.0	New London, Conn	San Francisco, Cal.	Ballast			
Helen Olmsted [1]	13	22 40	14	6.50	14	18.50	14	19.45	American	The Texas Co	425.8	57.0	20.0	Philadelphia, Pa	Los Angeles, Calif	Ballast		7,484	5,216
Svealand [2]	13	22.15	14	7.40	14	21.04	15	2.20	Swedish	Ore S. S. Corp	561.0	72.0	20.8	New York, N. Y.	Cruz Grande, Chile	Ballast		15,425	4,421
Mataroa	14	7.10	14	8.10	14	19.54	15	8.47	British	Shaw, Savill & Albion	500.0	63.0	24.0	London, England	Wellington, N. Z	General	4,000	13,590	9,233
Mary Ellen O'Neil [1] [2]	14	6.45	14	8.35	14	22.00	14	23.00	American	The Texas Co	509.0	70.3	18.10	Chester, Pa	Los Angeles, Calif	Ballast		12,514	8,427
Victoria Maru	14	8.15	14	9 20	14	23.16	15	00.37	Japanese	Kawasaki Dockyard Co	385.0	51.0	26.0	Norfolk, Va	Nagasaki, Japan	([10])	7,481	6,250	4,670
W. L. Steed [1]	14	15.05	14	15.18	15	00.35	15	1.54	American	American Oil Co	416.8	56.1	21.0	Norfolk, Va	Los Angeles, Calif	Ballast		6,751	4,795
Moveria [2]	12	21.20	14	15.58	15	1.35	15	7.10	British	Donaldson Brothers	385.0	52.0	16.3	Glasgow-England	Vancouver, B. C	General, bananas	1,076	6,576	4,724
El Grillo [1]	14	8.45	14	18.15	15	2.44	15	3.47	British	C. T. Bowring & Co	440.0	57.6	21.5	Halifax, N. S	Talara, Peru	Ballast		7,468	5,042
Hurry On [6]			14		14	12 01			American	George Hardy				Cristobal, C. Z	Gatun, C. Z	([11])		1	1
Ark [6]			14		14	12.01			American	D. Quaile				Cristobal, C. Z	Gatun, C. Z	Ballast		3	3
L-55 [6]			14		14				American	U. S. Army				Cristobal, C. Z	Balboa, C. Z				
Stingstad [1] [2]	14	14.45	14	20.05	15	14 39	15	17.20	Norwegian	Tidewater Oil Co	386.3	55.3	15.0	Falmouth, England	San Francisco, Cal.	Ballast		6,221	4,189
Dusan Silni	14	21.15	15	6.20	15	16 00	15	17.26	Yugoslav	Baburizza & Co	421.0	55.0	25.0	Blyth, England	Iquique, Chile	Coal, general	6,523	6,429	4,379
Waucia III [9]	14	7.05	15	6.10	15	15 15			American	N. B. Woolworth	169.5	26.0	11.0	New York, N. Y.	Balboa, C. Z	Ballast		530	240
City of Hankow	14	21.35	15	7.40	15	17.14	15	18 20	British	Norton, Lilly & Co	465.0	58.2	24.6	New York, N. Y.	Melbourne,Aust'lia	General	10,357	9,051	6,835

[1] Tanker. [2] Patrol boat. [6] Launch. [7] Whaler. [8] Coast guard cutter. [9] Yacht. [10] Steel sheets, scrap iron, rails, tinplate, and cotton. [11] Towing launch *Ark*.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Heathfield	15	1.10	15	7.40	15	18.15	15	19.25	British	S'son Spencer & Young	400.0	52.0	15.0	S. Shields, Eng	Vancouver, B. C.	Ballast		5,804	4,045
Sun [1 12]	15	3.00	15	8.40	15	19.25	16	00.30	American	Sun Oil Co	480.6	66.0	21.0	Chester, Pa	Los Angeles, Calif.	Ballast		9,620	6,424
Woodfield	15	5.20	15	9.05	15	20.12	15	21.35	British	Anglo-Chilean Nit'te Co.	400.0	53 0	14 6	Pensacola, Fla	Tocopilla, Chile	Ballast		5,798	4,118
Norrona II [13]	12	23.55	15	9.45	15	17.15	15	18.20	Norwegian	L. Thosen S. S. Co	111.0	20.0	10 4	Sandejeford, N'way	Magdalena Bay	Ballast		178	49
Troutpool	15	7.50	15	11.15	15	21.11	15	22.23	British	E. Deckers & Co	390.0	55.0	22.0	Antwerp, Belgium	Los Angeles, Calif.	Cement clinkers	6,296	5,899	4,231
Gen. Wm. M. Graham [14]			15	8.00	15	17.11			American	U. S. Army	156.0	32.0		Cristobal, C. Z	Balboa, C. Z				
Edw. P. Nonce [15]			15	8.00	15	17.11			American	U. S. Army	101.0	23.5		Cristobal, C. Z	Balboa, C. Z				
Gen. G. W. Getty [15]			15	8.00	15	17.11			American	U. S. Army	89.0	22.0		Cristobal, C. Z	Balboa, C. Z				
Amsterdam	14	9.20	16	6.15	16	16.35	17	7.20	Dutch	Royal Neth. S. S. Co.	474.0	65.0	21.3	Hamburg, Germany	Corral, Chile	General	3,843	11,638	7,744
Ramon de Larrinaga	15	21.55	16	6.25	15	18.02	16	19.30	British	Larrinaga & Co	449.9	58.0	18.0	Barry, England	Vancouver, B. C.	Ballast		7,712	5,600
El Panquiaco [16]			16	6.55	16	16.40	16	17.41	Panaman	Panaman Government	125.0	23 0		Cristobal, C. Z	Balboa, C. Z	Ballast		288	101
Cabimas [1 17]	16	00.55	16	7.30	16	18.02			Venezuelan	Venezuela Gulf Oil Co.	279.8	47 2	10.6	Maracaibo, Vnez'a	Balboa, C. Z	Ballast		2,220	1,328
Manizales	14	19.55	16	10.30	16	19.00	16	20.15	German	North German Lloyd	216 5	33.9	14.0	Cristobal, C. Z	Guayaquil, Ecuador	General	169	1,132	741
Pacific Grove [12]	13	16.33	16	12.40	16	20.16	17	00.25	British	Furness, Withy & Co	450.0	60.6	21.6	Manchester, Eng	Vancouver, B. C.	General, bananas	1,404	10,086	7,226
Golden Sea	16	12.30	16	12.45	16	21.25	17	4.13	British	Boyd, Weir & Sewel	387.6	52.0	23.9	New York, N. Y.	Taku Bar, China	Flour		7,032	5,434	4,011
George Washington [12]	16	11.15	16	15.48	16	23.15	18	13.45	Norwegian	Fred Olsen & Co	425.1	55.3	23.11	Oslo, Norway	Vancouver, B. C.	General	6,626	7,505	5,627
Sutermeo	16	11.25	16	19.36	17	3.50	17	6.00	American	Grace Line	324.0	46 2	18.7	New York, N. Y.	Antofagasta, Chile	General	1,750	3,984	2,628
City of San Francisco [12]	4	21.20	16	19.30	17	3.53	17	11.12	Panaman	Panama Mail S. S. Co.	296.0	40 0	21.5	Cristobal, C. Z	San Francisco, Cal.	General	2,579	3,848	2,606
Quail [18]			16	11.30	16	20 08			American	U. S. Navy	180.0	35.6		Cristobal, C. Z	Balboa, C. Z	([19])			

[1] Tanker. [12] Motor ship. [13] Whaler. [14] Mine planter. [15] Tug. [16] Transport. [17] South for dry-docking. [18] Mine sweeper. [19] Towing raft.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Canadian Miller	9	14.45	10	4.12	10	12.40	10	15.30	British	Can. Nat. Steamships	400.3	52 3	23.6	Port Alberni, B. C.	Halifax, N. S.	Lumber, general	6,005	5,982	4,186
H. C. Folger [1]	9	15.30	10	5.36	10	13.35	10	13.35	American	Atlantic Refining Co	435.0	56.0	27.2	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,123	7,461	5,159
Firmore	9	21.45	10	6.53	10	14.58	10	14.58	American	Ore S. S. Corp	449.0	57.2	28.0	Cruz Grande, Chile	Baltimore, Md	Iron ore	11,614	8,847	5,185
Witell	9	22.12	10	7.23	10	17.05	10	18.40	German	North German Lloyd	449.6	58.3	24.4	Seattle, Wash	Antwerp, Belgium	General	7,290	7,816	5,755
Ville de Verdun	10	6.45	10	8.51	10	18.10	10	22.45	French	Messageries Maritimes	409.3	53.5	20.6	Noumea, N. Calid	Dunkirk, France	General	3,725	7,603	5,629
East Lynn [20]	9	23.50	10	9.53	10	18.50	10	18.50	British	Sir. W. R. Smith & Sons	401.1	54 3	25.5	Vancouver, B. C.	Manchester, Eng	General	7,878	6,784	5,107
Santa Cecilia	10	14.30	11	4.55	11	12.20	11	12.20	American	Argonaut S. S. Co	404.6	53.9	27.6	Seattle, Wash	Baltimore, Md	Lumber, general	6,733	6,745	4,562
Laponia [20]	10	2.15	11	7.38	11	15.20	11	16.18	Swedish	Traf. Granges. Oxelcs'd	393.6	53.4	24.9	Iquique, Chile	Azores [21]	Nitrates	7,700	5,870	3,879
Santa Elisa	11	10.25	11	11.18	11	19.00	11	21.55	American	Grace Line	360.3	51.7	25.6	Antofagasta, Chile	New York, N. Y.	General	3,946	5,957	4,325
Scotscraig	11	10.25	11	11.34	11	20.50	11	22.55	British	Bank Line, Ltd	350.3	51.2	24.9	Tocopilla, Chile	Mobile, Ala	Nitrates	6,540	4,892	3,647

[1] Tanker. [20] Motor ship. [21] For orders.

J. L. Luckenbach	11	16.30	12	3.50	12	11.05	12	11.05	American	Luckenbach Line	448.9	60.2	29.6	Portland, Oreg.	Boston, Mass.	General	9,000	9,292	6,861
Ida	11	17.30	12	4.02	12	12.35	12	12.35	Norwegian	Knut Knutsen	266.9	42.2	19.0	Tocopilla, Chile	New Orleans, La.	Nitrates	2,800	2,095	1,407
Hampholm	11	18.20	12	5.48	12	14.05	12	17.25	Norwegian	Comyn & Co.	376.2	52.6	23.6	Vancouver, B. C.	Ostend, Belgium	Lumber, general	5,106	5,121	3,862
Sagama River	11	19.30	12	6.38	12	15.20	12	16.15	British	Andrew Weir & Co.	385.0	52.1	24.0	Antofagasta, Chile	Pensacola, Fla.	Nitrates	7,400	5,237	3,837
Minnesotan	12	3.00	12	7.37	12	16.35	12	16.35	American	Amer.-Hawaiian Line	407.7	53.7	28.0	Portland, Oreg.	Boston, Mass	General	7,800	7,150	5,024
Brazos [1]			12	12.31	12	19.45	12	19.45	American	U. S. Navy	475.0	56.0		Balboa, C. Z.	Cristobal, C. Z.				
Oklahoma	12	12.30	12	13.33	12	21.22	13	15.05	French	French Line	400.3	51.3	26.7	Arica, Chile	Le Havre, France	General	7,091	6,014	4,477
Glamorganshire	12	14.50	12	23.04	13	9.10			British	Royal Mail S. P. Co.	445.0	58.0	25.9	Vancouver, B. C.	Antwerp, Belgium	General	8,146	8,229	5,982
Major D. D. Pullen [22]			12		13	12.00			American	U. S. Army				Balboa, C. Z.	Cristobal, C. Z.				
Buccaneer [22]			12		13	12.00			American	H. C. Downey				Balboa, C. Z.	Cristobal, C. Z.				
Cape Cornwall	13	00.30	13	2.40	13	10.45	13	10.45	British	Can.-Amer. Ship. Co.	405.3	53.5	24.6	Vancouver, B. C.	Hamburg, Germany	Lumber, wheat	7,248	5,741	4,088
Esparta	13	1.35	13	3.20	13	12.05			American	United Fruit Co.	330.6	44.6	19.8	San Francisco, Cal.	Port Limon, C. R.	General	1,444	3,073	2,367
Canadian Britisher	13	4.15	13	5.25	13	13.55	13	16.05	British	Can. Nat. Steamships	400.3	52.2	18.6	Auckland, N. Z.	Halifax, N. S.	[26]	3,200	5,906	4,187
Keifuku Maru	13	4.55	13	6.09	13	14.55	13	17.35	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.0	Pulupandan, P. I.	Gulfport, Miss.	Sugar	7,550	6,213	4,670
Pacific President [23]	13	3.50	13	6.44	13	16.20	13	16.20	British	Furness, Withy & Co.	450.0	60.8	27.9	Vancouver, B. C.	Glasgow, Scotland	General	8,055	10,086	7,226
Medusa			13	8.20	13				American	U. S. Navy	460.0	70.0		Balboa, C. Z.	Cristobal, C. Z.				
Minden	13	13.24	13	15.00	13	23.45			German	North German Lloyd	360.7	51.0	15.0	Champerico, Guat.	Hamburg, Germany	Coffee, sugar	1,005	4,822	3,275
Ontariolite [1 23]	13	10.45	14	5.25	14	13.20	14	14.55	British	Imperial Oil Co., Ltd.	470.0	63.2	29.0	Talara, Peru	Halifax, N. S.	Crude oil	12,000	9,191	6,051
Virginian	14	4.00	14	6.48	14	14.15	14	14.15	American	Amer.-Hawaiian Line	491.5	58.2	30.0	Seattle, Wash.	Boston, Mass.	Lumber, general	9,000	10,491	7,601
Acajutla	14	3.00	14	7.00	14	15.00			British	Pacific Steam Nav. Co.	215.7	33.5	17.0	Champerico, Guat.	Cristobal, C. Z.	Coffee, general	1,102	1,273	706
Dochet	14	7.30	14	8.09	14	15.45	14	15.45	American	Redwood Line, Inc.	386.8	52.2	23.6	San Francisco, Cal.	New Orleans, La.	General	5,126	5,705	4,167
Uribe	14	9.45	14	10.48	14	18.40			Colombian	Colombian Marit. Co.	227.4	31.7	12.7	Buenaventura, Col.	Cristobal, C. Z.	[27]	593	1,154	663
George W. Barnes [1]	14	10.10	14	11.04	14	19.38	14	21.55	American	Huasteca Petroleum Co.	416.8	56.1	26.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,540	6,763	4,759
Manizales	14	11.00	14	11.55	14	19.55	16	10.30	German	Roland Line	216.5	32.9	14.6	Guayaquil, Ecuador	Cristobal, C. Z.	General	497	1,132	741
Loyal Briton	14	11.20	14	12.12	14	20.55	14	20.55	British	Loyal Line, Ltd.	393.4	51.1	24.5	Antofagasta, Chile	Azores [21]	Nitrates	7,300	5,640	4,262
Alvarado	14	12.30	14	13.49	14	22.20	16	7.25	British	Pacific Steam Nav. Co.	303.0	43.0	16.0	Puntarenas, C. R.	New York, N. Y.	Coffee, wood	1,158	2,844	1,748
Cerigo	14	13.20	14	14.42	14	22.25			German	Hamburg-American Line	227.0	34.4	13.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	219	1,572	1,011
Bagaduce [24]			14	13.37	14	22.15			American	U. S. Navy	150.0	28.0		Balbao, C. Z.	Cristobal, C. Z.				
West Montop	14	13.50	15	5.07	15	12.50	15	12.50	American	Calif. & East'n S. S. Co.	410.0	54.4	24.0	Olympia, Wash.	Philadelphia, Pa.	Lumber	7,449	6,484	4,675
Quail [25]			15	5.48	15	17.30	16	11.30	American	U. S. Navy	188.0	35.6		Balboa, C. Z.	Cristobal, C. Z.				
Hessen	14	18.30	15	6.11	15	13.25	16	21.35	German	Hamburg-American Line	468.5	58.2	26.5	Vancouver, B. C.	Hamburg, Germany	Lumber, general	8,382	9,568	6,680
Suwied	14	18.40	15	7.07	15	15.25	15	15.25	American	Charles Nelson & Co.	324.0	46.2	22.6	Seattle, Wash.	Baltimore, Md.	Lumber, general	1,780	3,983	2,629
Buenaventura	14	20.50	15	7.12	15	15.35	15	22.58	American	Panama R. R. S. S. Line	251.0	43.0	15.1	Guayaquil, Ecuador	New York, N. Y.	[28]	770	2,873	1,776
Teal			15		15	18.00			American	U. S. Navy	188.0	35.6		Balboa, C. Z.	Cristobal, C. Z.				
Bogota	14	21.30	15	8.26	15	17.40	15	23.45	British	Pacific Steam Nav. Co.	400.0	52.4	24.0	Magallanes, Chile	Liverpool, England	General	6,481	5,733	4,015
India Arrow [1]	15	00.05	15	9.48	15	18.40	15	18.40	American	Standard Oil Co. of N. Y.	468.3	62.7	27.4	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,616	10,084	7,426
Lochgoil [23]	15	4.30	15	10.32	15	19.15	18	3.10	British	Royal Mail S. P. Co.	485.6	62.3	28.0	Vancouver, B. C.	Rotterdam, Holland	General	8,363	10,802	7,606
F. H. Hillman [1]	15	18.10	16	5.34	16	13.20	16	13.20	American	Standard Oil Co. of Cal.	500.0	68.2	29.0	Los Angeles, Calif.	Baltimore, Md.	Crude oil	16,700	11,225	7,913
Marie Maersk [1 23]	15	19.35	16	6.23	16	14.35	16	14.35	Danish	A. P. Moller	466.0	61.6	26.9	Los Angeles, Calif.	Land's End, Eng. [21]	Gasoline	11,942	8,645	6,054
Daghild	16	00.15	16	8.30	16	17.30	16	17.30	British	Dominion Coal Co.	455.0	58.1	27.6	Iquique, Chile	New Orleans, La.	Nitrates	11,300	8,002	5,606
Induna	16	1.00	16	8.52	16	17.40	16	17.40	British	Wessel, Duval & Co.	403.0	52.2	24.6	Antofagasta, Chile	Jacksonville, Fla.	Nitrates	7,700	5,634	4,172
Yankee Arrow [1]	16	4.00	16	9.42	16	19.16	16	19.10	American	Standard Transp. Co.	468.3	62.7	28.3	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,153	9,841	6,946
Peter Kerr	16	6.00	16	10.55	16	19.50	16	19.50	American	Arrow Line	415.0	55.7	28.2	Portland, Oreg.	Baltimore, Md.	[29]	8,618	7,704	5,707
Mojave	16	11.45	16	12.31	16	20.50	16	20.50	American	General Petroleum Co.	435.0	56.2	27.2	Los Angeles, Calif.	New York, N. Y.	[30]	9,977	7,434	5,098

[1] Tanker. [22] Launch. [23] Motor ship. [24] Auxiliary fleet tug. [25] Mine sweeper. [26] Wool, hides, and hemp. [27] Coffee, hides, and gold. [28] Tagua, cacao, and coffee. [29] Lumber, wheat, and copper. [30] Kerosene distillate.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian

PORT OF CRISTOBAL

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
February 10...	Juan Sebastian Elcano	Spanish Line	Barcelona via wayports.	February 10...	Anachucuna [31]	United Fruit Co	Colon, R. P.
February 10...	Macabi	United Fruit Co	New York via wayports.	February 10...	N. C. 8000 [32]	Pan-American Airways	Miami via wayports.
February 12...	Columbus	North German Lloyd	New York via wayports.	February 10...	N. C. 8004 [32]	Pan-American Airways	Miami via wayports.
February 13...	Ariguani	Elders & Fyffes, Ltd	Avonmouth via wayports.	February 11...	Heredia	United Fruit Co	New Orleans via wayports.
February 13...	Cristobal	Panama R. R. S. S. Line	New York via Haiti.	February 11...	Macabi	United Fruit Co	New York via Kingston.
February 13...	Zacapa	United Fruit Co	New York via Kingston.	February 11...	Wanks	Standard Fruit & S. S. Corp	San Blas, R. P.
February 13...	Suriname	United Fruit Co	New Orleans, La.	February 13...	Juan Sebastian Elcano	Spanish Line	Barcelona via wayports.
February 13...	Mandeville	United Fruit Co	New Orleans, La.	February 13...	Columbus	North German Lloyd	New York via wayports.
February 13...	Loening [32]	Pan-American Airways	Managua, Nicaragua.	February 14...	Ariguani	Elders & Fyffes, Ltd	Avonmouth via wayports.
February 14...	Daghild	Anglo-Saxon Petroleum Co	Curacao, D. W. I.	February 14...	Zacapa	United Fruit Co	Colombian ports.
February 14...	Atlantian	Leyland Line	Liverpool, England.	February 14...	Mandeville	United Fruit Co	Perne, R. P.
February 14...	Ulua	United Fruit Co	New York via wayports.	February 14...	Linda S. [33]	A. L. Surgeon	Bluefields, Nicaragua.
February 14...	Linda S. [33]	A. L. Surgeon	Colon, R. P.	February 14...	Suriname	United Fruit Co	Santa Marta via Bocas.
February 14...	Inapaquina [31]	United Fruit Co	Colon, R. P.	February 14...	Inapaquina [31]	United Fruit Co	Colon, R. P.
February 14...	Anachucuna [31]	United Fruit Co	Colon, R. P.	February 14...	Anachucuna [31]	United Fruit Co	Colon, R. P.
February 15...	Atlantida	Standard Fruit & S. S. Co	New Orleans, La.	February 15...	Atlantian	Leyland Line	Sardina Cay.
February 14...	Coppename	United Fruit Co	Puerto Colombia.	February 15...	Coppename	United Fruit Co	New Orleans, La.
February 15...	Grunewald	Hamburg-American Line	Hamburg, Germany.	February 15...	Ulua	United Fruit Co	New York via wayports.
February 16...	Kungsholm	Swedish-American Line	New York via wayports.	February 15	Daghild	Anglo-Saxon Petroleum Co	Curacao, D. W. I.
February 16...	Delilian	Leyland Line	Palo Alto, Cuba.	February 16	Anachucuna [31]	United Fruit Co	Colon, R. P.
February 16...	Mandeville	United Fruit Co	Perme, R. P.	February 16.	Atlantida	Standard Fruit & S. S. Corp	New Orleans via wayports.
February 16...	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	February 16.	Grunewald	Hamburg-American Line	Port Limon, Costa Rica.
February 16...	Anachucuna [31]	United Fruit Co	Colon, R. P.	February 16..	William M. [34]	G. I. Bryan	Bluefields, Nicaragua.
February 16...	William M. [34]	G. I. Bryan	Colon, R. P.	February 16.	San Pablo	United Fruit Co	Puerto Colombia
February 16...	San Pablo	United Fruit Co	New York via wayports.				

[31] Motor boat. [32] Air-mail carrier. [33] Motor schooner. [34] Schooner.

PORT OF BALBOA.

February 12...	Rakuyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.	February 11.	Utacarbon	Union Oil Co. of California	Los Angeles, Calif.
February 13...	A. B. De Obarrio [35]	Pacific Fruit Co	Bayano River, R. P.	February 13..	A. B. de Obarrio [35]	Pacific Fruit Co	Panama Bay, R. P.
February 13...	Dos Hermanos [35]	A. Valdez	Bayano River, R. P.	February 14..	Dos Hermanos [35]	A. Valdez	Panama Bay, R. P.
February 13...	Ideal [35]	Hans Elliot	Darien, R. P.	February 14.	Ideal [35]	Hans Elliot	Panama Bay, R. P
February 16...	Nora	Grace Line	Los Angeles, Calif.				

[35] Motor schooner.

* Other than ships passing through the Canal.

Cargo Through Canal During January, 1929.

On pages 410 and 411 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in January, 1929. This cargo, segregated according to direction, as compared with January, 1928, and the differences, is shown in the following tabulation:

	January, 1929.	January, 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Atlantic to Pacific	759,820	641,708	+118,112
Pacific to Atlantic	2,099,015	1,730,353	+368,662
Totals	2,858,835	2,372,061	+486,774

As will be noted above, tonnage from the Atlantic to the Pacific increased 118,112 tons over that in January, 1928, and that from the Pacific to the Atlantic increased 368,662 tons, a gain in traffic in both directions of 486,774 tons. Total cargo passing through the Canal in the month of January, 1929, was the heaviest since the opening of the Canal. It exceeded that in the previous record month (October, 1927), by 141,189 tons. This represents a general increase in practically all of the larger items of cargo.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-eight per cent of the cargo moving from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 24.2 per cent in Europe. Cargo originating in the United States was 109,205 tons, or 26.7 per cent greater than the amount coming from that area in January, 1928. The percentages of the whole was also slightly higher in January, 1929, than in January, 1928. Cargo passing through the Canal from Europe showed the small increase of 4,883 tons, although the percentage of the whole was somewhat lower than in January of last year.

Destination.—Almost 44 per cent of the Pacific-bound cargo was destined to the United States; 21.8 per cent to Asia; 13.2 per cent to Australasia; and 11.9 per cent to South America. Cargo to the United States and Asia increased 83,052 tons, or 33.1 per cent, and 19,045 tons, or 12.9 per cent respectively, over that in January last year. Shipments to the United States also showed a small relative increase, while the proportion of the total tonnage destined to Asia was slightly lower than that shipped in January, 1928. Shipments to Australasia and South America decreased slightly in point of actual cargo under January, 1928, although the proportion of the total tonnage shipped to both these areas in January, 1928, was somewhat greater than in the past month.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 46.3 per cent originated on the west coast of the United States; 28.5 per cent in South America; 16.4 per cent in Canada; 4.2 per cent in Asia; and 3.8 per cent in Australasia. Cargo from all these areas, with the exception of Canada, showed substantial increases in actual tonnage over January, 1928, as well as, in the case of that from the United States and Asia, a greater proportion of the total cargo routed from the Pacific to the Atlantic. The actual increases to the United States, South America, Asia, and Australasia amounted to 218,276 tons, or 28.9

per cent; 98,418 tons, or 19.7 per cent; 45,315 tons, or 104.0 per cent, and 17,083 tons, or 27.8 per cent, respectively, over January, 1928. The percentages of the totals from South America and Australasia were about the same as in January of last year. Cargo from Canada showed an actual decrease of 7,678 tons, as well as a small relative decrease under January, 1928. Heavy shipments of nitrates and mineral oils were largely responsible for the increase in cargo from the Pacific coast areas.

Destination.—Segregated according to destination, 48.2 per cent of the cargo in this direction went to the United States and 47.3 per cent to Europe. Tonnage to the United States showed an actual increase of 168,570 tons, or 20 per cent over January, 1928, as well as a relative increase, and that to Europe an increase of 207,546 tons, or 26.4 per cent. The percentage of the total to Europe was 47.3 per cent as compared with 45.4 per cent in January, 1928.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 85 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 15 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic to Pacific bound commodities which aggregated more than 10,000 tons for January, 1929, or January, 1928, are listed in the following tabulation, showing differences:

Commodity.	January, 1929.	January, 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Automobiles	14,414	7,548	+6,866
Cement	32,425	32,053	+372
Coal and coke	11,797	18,880	−7,083
Cotton	32,431	23,920	+8,511
Manufactured goods:			
Iron and steel	196,308	163,331	+32,977
Machinery	16,064	11,499	+4,565
Railroad material	14,575	18,275	−3,700
Tinplate	31,929	8,936	+22,993
Miscellaneous	21,665	14,903	+6,762
Metals, various	17,007	15,649	+1,358
Mineral oils	44,819	37,648	+7,171
Paper	15,891	14,404	+1,487
Phosphates	11,166	31,731	−20,565
Slag	17,245	3,943	+13,302
Sulphur	18,786	11,886	+6,900

The above 15 commodity groups comprise over 65 per cent of the cargo moving from the Atlantic to the Pacific during January, 1929. It will be noted that 12 of the items show increases, while 3 show decreases. The heaviest increases were in shipments of iron and steel, tinplate and slag, while phosphates registered a heavy loss under January, 1928.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 98 per cent of all cargo moving from the Pacific to the Atlantic during the month of January, 1929. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	January, 1929.	January, 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Beans	34,076	11,085	+22,991
Canned goods (fish, fruit, vegetables, etc.)	105,824	71,398	+34,426
Coffee	14,567	18,256	−3,689
Cold storage (food products) [1]	38,459	27,763	+10,696
Cotton	12,864	10,208	+2,656
Flour	11,492	7,493	+3,999
Fruit, dried	31,353	28,197	+3,156
Fruit, fresh	24,241	8,496	+15,925
Lumber	229,743	222,657	+7,086
Metals, various	56,890	48,644	+8,246
Nitrates	358,600	245,472	+112,928
Oils, mineral	509,841	405,259	+104,582
Ores (principally iron)	120,594	133,594	−13,000
Sugar	46,000	53,131	−7,131
Wheat	330,500	331,298	−798
Wool	22,289	18,397	+3,892

[1] Does not include fresh fruit.

The above 16 commodity groups comprise over 92 per cent of the total cargo moving from the Pacific to the Atlantic during January, 1929. All items, with the exception of coffee, ores, sugar, and wheat, showed increases, the heaviest of which were in nitrates and mineral oils.

(Continued on next page.)

Arrival of First of Three New Steamers for Spanish Line's Atlantic Service.

The steamship *Juan Sebastian Elcano* of the Compañia Trasatlantica Española (Spanish Line), which arrived at Cristobal on February 10, 1929, from Barcelona, via wayports, on her maiden voyage and sailed on February 13, is the first of three vessels of nearly 10,000 tons, gross, being constructed by the company for its service to northern South America and the Caribbean area. Each ship is to have approximately the following dimensions: Length, 460 feet; beam, 56 feet; depth, 24 feet. Each will have accommodations for first, second, and third-class passengers aggregating 1,200.

The two other steamers now building are the *Marques de Comillas* and the *Magallanes*, which are due to arrive at Cristobal on their first voyages on April 3 and April 29, 1929, respectively. The three new steamers, operating in conjunction with the *Manuel Arnus* and the *Buenos Aires*, will maintain a schedule with sailings at intervals of from three to four weeks over the following itinerary: Barcelona, Valencia, Malaga, Cadiz, Canary Islands, San Juan (Porto Rico), La Guaira, Puerto Cabello, Curacao, Puerto Colombia, Cristobal; homeward bound, Puerto Colombia, Curacao, Puerto Cabello, La Guaira, Santo Domingo (optional), San Juan (Porto Rico), Canary Islands, Cadiz, and Barcelona.

The Compañia Trasatlantica Española has heretofore been sending its steamers in this service through the Panama Canal to the west coast of South America, making calls at Guayaquil, Callao, Mollendo, Arica, Iquique, Antofagasta, and Valparaiso. With the first voyage of the *Juan Sebastian Elcano* the sending of vessels through the Canal to the west coast is discontinued and the company will for the present confine the service to the Atlantic.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, January, 1929.—Continued from page 409.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.					
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. [1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America. [1]	Balboa, C. Z. [2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East. [1]	Total, Asia.	Australia.	New Zealand.	Australasia. [1]	Total, Australasia.	Grand totals.	Per cent of total cargo.
North America:																								
United States—																								
North Atlantic ports	8,777	2,490	166	9,997	3,750	25,180	191,717	499	2,932	....	56	14,650	209,854	44,187	15,966	6,373	19,570	86,096	26,647	10,011	....	36,658	357,788	47.0
South Atlantic ports	....	....	....	....	....	....	2,910	....	....	....	....	....	2,910	4,649	....	....	....	4,649	....	....	....	....	7,559	1.0
Gulf ports	286	113	109	601	570	1,679	62,571	....	....	....	....	1,092	63,663	12,310	21,652	130	10,683	74,775	7,000	4,900	....	11,900	152,017	20.0
Totals, U. S.	9,063	2,603	275	10,598	4,320	26,859	257,198	499	2,932	....	56	15,742	276,427	91,146	37,618	6,503	30,253	165,520	33,647	14,911	....	48,558	517,364	68.0
Cristobal, C. Z. [2]	527	2,975	1,350	301	1,830	6,983	3,767	6	11,239	....	....	....	15,042	....	....	....	....	....	....	....	....	....	22,025	2.9
East coast of Canada	....	....	....	....	....	....	537	7,056	....	....	....	....	7,593	....	....	....	....	....	6,268	3,500	....	9,768	17,361	2.3
West Indies	....	....	....	....	40	40	4,270	....	....	....	....	....	4,270	....	....	....	....	....	....	....	....	....	4,310	0.6
East Coast Cen. Amer.	....	....	....	....	1,428	1,428	2,095	....	5,122	....	....	....	7,217	....	....	....	....	....	....	....	....	....	8,645	1.2
Totals, N. America	9,590	5,578	1,625	10,899	7,618	35,310	267,867	7,561	19,323	....	56	15,742	310,549	91,146	37,618	6,503	30,253	165,520	39,915	18,411	....	58,326	569,705	75.0
Europe:																								
British Isles	4,344	183	663	1,014	6,601	12,805	16,565	3,613	....	....	17	....	20,195	....	....	....	....	....	....	30,087	40	30,127	63,127	8.3
Belgium	4,562	2,027	108	957	1,262	8,916	23,185	4,078	1,883	....	90	....	29,236	....	....	....	....	....	....	12,085	....	12,085	50,237	6.6
France	....	71	30	90	1,360	1,551	3,678	2,023	737	....	....	....	6,438	....	....	....	....	....	....	....	....	....	7,989	1.0
Germany	1,414	55	....	375	1,150	2,994	8,515	....	4,039	....	263	....	12,817	....	....	....	....	....	....	....	....	....	15,811	2.1
Holland	60	196	....	334	1,676	2,266	3,025	1,545	....	....	....	....	4,570	....	....	....	....	....	....	....	....	....	6,836	0.9
Italy	430	....	....	51	1,852	2,333	778	1,176	1,395	....	....	....	3,349	....	....	....	....	....	....	....	....	....	5,682	0.7
Norway and Sweden	2,459	3,072	....	1,088	380	6,999	3,495	133	2,875	....	911	13	7,427	....	....	....	....	....	....	....	....	....	14,426	1.9
Spain and Portugal	245	31	....	46	124	446	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	446	0.1
Europe [1]	110	....	....	110	15,933	16,153	2,014	1,185	80	....	....	....	3,279	....	....	....	....	....	....	....	....	....	19,432	2.6
Totals, Europe	13,624	5,635	801	4,065	30,338	54,463	61,255	13,753	11,009	....	1,281	13	87,311	....	....	....	....	....	....	42,172	40	42,212	183,986	24.2
E. coast of South America	....	506	....	....	....	506	4,711	630	....	....	....	....	5,341	282	....	....	....	282	....	....	....	....	6,129	0.8
Grand totals	23,214	11,719	2,426	14,964	37,956	90,279	333,833	21,944	30,332	....	1,337	15,755	403,201	91,428	37,618	6,503	30,253	165,802	39,915	60,583	40	100,538	759,820	100.0
Per cent of total cargo:																								
January, 1929	3.1	1.5	0.3	2.0	5.0	11.9	43.9	2.9	4.0	....	0.2	2.1	53.1	12.0	4.9	0.9	4.0	21.8	5.2	8.0	....	13.2	100.0	.....
January, 1928	2.4	1.6	0.3	1.9	7.9	14.1	38.0	1.8	3.4	0.6	0.2	1.3	46.3	13.0	5.9	1.8	2.2	22.9	7.1	8.1	1.5	16.7	100.0	.....
January, 1927	3.5	0.5	0.3	0.6	6.7	11.6	37.1	3.3	2.2	2.1	1.0	0.5	46.2	11.5	4.0	0.4	7.5	23.4	11.1	7.3	1.4	19.8	100.0	....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination o Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, January, 1929.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.															Per cent of total cargo.
	United States.																								
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	East coast of Central America.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.[3]	Total, Europe.	East coast of South America.	Egypt.	Africa.	Grand totals.	
South America:																									
Chile	145,114	24,346	59,229	228,689	.....	11,416	.....	262	240,367	16,728	3,349	.....	9,119	19,583	97	3,636	949	601	199,608	253,670	55	8,471	....	502,508	24.0
Colombia	1,748	.....	.....	1,748	.....	.....	.....	4,808	6,556	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	10	.....	.....	.....	6,566	0.3
Ecuador	10,683	.....	.....	10,683	.....	3	.....	3,272	13,958	57	.....	16	191	199	25	413	.....	157	.....	1,058	.....	.....	.....	15,016	0.7
Peru	25,989	.....	.....	25,989	9,553	.....	.....	2,538	38,080	12,665	3,664	555	607	729	147	.....	.....	.....	12,200	30,547	.....	.....	.....	68,627	3.3
West coast So. America[1]	122	.....	.....	122	.....	.....	.....	2,550	2,672	.....	.....	.....	.....	20	.....	.....	.....	.....	1,465	1,485	.....	.....	.....	4,157	0.2
Totals, S. A.	183,656	24,346	59,229	267,231	9,553	11,419	.....	13,430	301,633	29,450	7,003	571	9,917	20,531	269	4,049	949	758	213,273	286,770	55	8,471	....	596,929	28.5
North America:																									
W. coast, Canada	25,886	.....	1,391	27,277	915	3,917	158	.....	32,267	132,898	3,319	.....	5,298	41,655	68,301	16,204	3,980	21,587	18,175	311,417	2,505	.....	.....	346,189	16.4
W. coast C. Am.	13	.....	.....	13	.....	462	77	6,143	6,695	341	.....	.....	276	494	88	233	474	5,000	498	7,404	.....	.....	.....	14,099	0.7
W. coast U. S.	594,434	9,364	40,220	644,018	.....	10,917	2,316	13,957	671,208	177,918	12,013	561	22,855	20,710	8,342	1,521	870	7,849	48,506	301,145	489	.....	7	972,849	46.3
Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	767	25	.....	.....	549	.....	.....	210	.....	.....	1,551	.....	.....	.....	1,551	0.1
Totals, N. Am.	620,333	9,364	41,611	671,308	915	15,296	2,551	20,100	710,170	311,924	15,357	561	28,429	63,408	76,731	17,958	5,534	34,436	67,179	621,517	2,994	.....	7	1,334,658	63.5
Asia:																									
China	8,139	.....	.....	8,139	.....	.....	.....	.....	8,139	.....	.....	.....	.....	8,000	.....	.....	.....	.....	.....	8,000	.....	.....	.....	16,139	0.8
Japan	6,324	.....	.....	6,324	.....	.....	.....	27	6,351	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,351	0.3
Philippines	29,975	.....	.....	29,975	.....	.....	.....	.....	29,975	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29,975	1.4
Far East[3]	15,032	.....	.....	15,032	.....	7,332	.....	.....	22,364	.....	.....	7,000	.....	.....	.....	.....	.....	.....	7,040	14,040	.....	.....	.....	36,404	1.7
Totals, Asia	59,470	.....	.....	59,470	.....	7,332	.....	27	66,829	.....	.....	7,000	.....	8,000	.....	.....	.....	.....	7,040	22,040	.....	.....	.....	88,869	4.2
Australasia:																									
Australia	5,143	.....	.....	5,143	465	.....	.....	34	5,642	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,642	0.3
New Zealand	8,030	.....	.....	8,030	3,274	.....	.....	.....	11,304	54,301	.....	.....	.....	.....	.....	.....	.....	.....	.....	54,301	.....	.....	.....	65,605	3.1
Australasia[3]	.....	.....	.....	.....	.....	.....	.....	.....	.....	314	2,200	.....	.....	159	.....	.....	.....	.....	4,609	7,282	.....	.....	.....	7,282	0.4
Totals, Aust'sia	13,173	.....	.....	13,173	3,739	.....	.....	34	16,946	54,615	2,200	.....	.....	159	.....	.....	.....	.....	4,609	61,583	.....	.....	.....	78,529	3.8
Grand totals	876,632	33,710	100,840	1,011,182	14,207	34,047	2,551	33,591	1,095,578	395,989	24,560	8,132	38,346	92,098	77,000	22,007	6,483	35,194	292,101	991,910	3,049	8,471	7	2,099,015	100.0
Per cent of total cargo:																									
January, 1929	41.8	1.6	4.8	48.2	0.7	1.6	0.1	1.6	52.2	18.9	1.2	0.4	1.8	4.4	3.7	1.0	0.3	1.7	13.9	47.3	0.1	0.4	.....	.....	100.0
January, 1928	42.1	3.3	*3.3	48.7	1.2	1.4	0.6	2.2	54.1	16.3	2.9	0.1	1.9	6.9	4.7	1.8	1.4	0.4	9.0	45.4	.....	0.5	.....	.....	100.0
January, 1927	55.5	3.2	2.8	61.5	1.8	1.9	0.2	2 9	68.3	11.1	0.2	.....	1.3	1.6	0.6	0.8	0.4	.....	14.4	30.4	1.3	.....	.....	.....	100.0

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Indicates both local and transit cargo.

Revision of Range Lights Nos. 1 and 2, Pacific Entrance.

Range towers Nos. 1 and 2, for ships entering Balboa from the Pacific, have recently moved slightly out of alignment probably due to blasting which has been done in connection with deepening the Pacific sea level section. In order to remedy the situation the present range tower No. 1 will be removed and the present range tower No. 2 (reduced in height by 20 feet) will remain as the new No. 1 range, while a new No. 2 range tower 100 feet high will be erected on a hill west of Miraflores Lake and on the bank of the Cocoli River.

The time of beginning this work depends on the completion of other work on aids to navigation now under way. Notice to mariners will be issued when changes to existing range towers are made.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending February 9, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged.	Laded.
				Tons.	*Tons.*
Ancon	Panama R. R. S. S. Line		February 3		3,260
Orestes	Royal Netherlands S. S. Co		February 3		444
Baralt	Royal Netherlands S. S. Co		February 3		189
Barneveld	Royal Netherlands S. S. Co		February 3		211
Arizona	French Line		February 3		168
Port Antonio	United Fruit Co		February 3		1,123
Hvoslef	United Fruit Co		February 3		395½
San Mateo	United Fruit Co	February 3	February 3	12¾	51
Knute Nelson	Fred Olsen S. S. Line	February 3	February 3	(1)	135
Annie Johnson	Johnson Line	February 3	February 3	140	(2)
Axel Johnson	Johnson Line	February 3	February 3	(1)	83
Parismina	United Fruit Co	February	February 4	510	99¼
Negada	Hamburg-American Line	February 3	February 6	(1)	1118
Guatemala	Panama Mail S. S. Co		February 4		1,336
Jamaica	Pacific Steam Navigation Co		February 4		759½
Lippe	North German Lloyd	February 4	February 4	69½	36
Almagro	Pacific Steam Navigation Co	February 4	February 5	214	(2)
Essequibo	Pacific Steam Navigation Co	February 4	February 5	43	52
Mississippi	French Line	February 4	February 5	520	(2)
Mantaro	Peruvian Line	February 4	February 5	(1)	249
Tirso	Italian Line	February 4	February 5	(1)	266
Mineola	N. O. & S. A. S. S. Line	February 5	February 5	16½	100
Saramacca	United Fruit Co	February 5	February 7	2,018	14
Wanks	Standard Fruit & S. S. Corp		February 6		¾
San Pablo	United Fruit Co	February 6	February 6	60	(2)
Sixaola	United Fruit Co	February 6	February 7	651	364
Copename	United Fruit Co	February 6	February 7	923	30
Santa Teresa	Grace Line	February 6	February 7	(1)	6
Pacific Shipper	Furness, Withy & Co	February 6	February 7	(1)	315
Schwaben	North German Lloyd	February 6	February 7	(1)	250
Macoris	French Line	February 6	February 7	111	731
Granada	Standard Fruit & S. S. Corp	February 6	February 8	676	477
Seattle	Hamburg-American Line	February 7	February 8	4½	315
Heinrich Arp	Colombian Maritime Co	February 7	February 8	458	(2)
Camden	United Fruit Co	February 7	February 8	5,472	(2)
Pastores	United Fruit Co	February 7	February 8	1,774	760
Metapan	United Fruit Co	February 7	February 7	(1)	364
Guayaquil	Panama R. R. S. S. Line	February 7	February 9	815	13
Venezuela	Royal Netherlands S. S. Co	February 7	February 9	36	899
Visurgis	North German Lloyd		February 8		1,407
Oranian	Leyland Line		February 8		143
Iriona	United Fruit Co	February 8	February 8	177½	55
Cauca	National Navigation Co		February 8		313
Phoenicia	Hamburg-American Line	February 8	February 9	100½	17
Cali	North German Lloyd	February 8		734	
Colombia	Panama Mail S. S. Co	February 8		1,562	
Wanks	Standard Fruit & S. S. Corp	February 8		82	
Heredia	United Fruit Co	February 8		794	
Santa Cruz	Grace Line	February 9		33	
Caldas	National Navigation Co	February 9		70½	
Dinteldijk	Holland-American Line	February 9		41	
Ludwigshafen	Roland Line	February 9	February 9	267	½
Rialto	Nav. Libera-Triestina	February 9		282	
Orita	Pacific Steam Navigation Co	February 9	February 9	8	6
Oropesa	Pacific Steam Navigation Co	February 9		153	
Midas	Royal Netherlands S. S. Co		February 9		42
City of San Francisco	Panama Mail S. S. Co	February 4		1,259	

(1) No cargo discharged. (2) No cargo laded.

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., February 27, 1929. No. 30.

Air Mail Between the United States and the Canal Zone.

The regular air mail service between the United States and the Canal Zone, inaugurated by Colonel Lindbergh's first flight from Miami on February 4, was continued in operation with the arrival at France Field on the morning of February 19 of the second consignment of air mail from the United States, carried by the amphibian plane 8044, operated by the Pan-American Airways, Inc.

The plane made the trip from Miami, Fla., to France Field in 52 hours, carrying one sack of mail weighing 40 pounds.

The first dispatch of air mail from the Canal Zone to the United States left France Field at 6 a. m. on February 10, two planes being necessary to carry the heavy mail, which amounted to 803½ pounds, 689 pounds of which were from the Canal Zone, and 114½ pounds from the Republic of Panama. This dispatch consisted of about 50,000 pieces of mail.

The second dispatch from the Canal Zone left France Field for Miami on February 23.

On air mail from the Canal Zone via Cristobal-Miami, the Canal Zone has adopted the same rates as prevail in the United States for the same service, *i. e.*, 25 cents for each half-ounce or fraction thereof, in addition to regular postage. The air-mail service charge must be represented by special Canal Zone 25-cent air-mail stamps and at least one rate of 25 cents must be prepaid by special air-mail stamp.

Standard Fruit and Steamship Company Placing New Steamers in Cristobal-New Orleans Run.

Announcement has recently been made by the Standard Fruit and Steamship Company that its two new steamers, the *Atlantida* and *Amapala*, are to be placed in the Cristobal-New Orleans run beginning with the sailing of the *Atlantida* from Cristobal and the *Amapala* from New Orleans on March 2, 1929. These two vessels, which are capable of making 18 knots, have accommodations for 70 first-class passengers. They will replace the *Gatun* and *Granada* which have been on this run and are being taken off for other service.

Under the new schedule the vessels will leave New Orleans every Saturday, via Habana, and arrive at Cristobal on Friday morning. Northbound, the vessels will sail from Cristobal every Saturday at noon for New Orleans, via Puerto Cabezas, Nicaragua, and arrive at New Orleans on Wednesday.

The *Amapala* and the *Atlantida* are 350 feet long, 50.2 feet beam, and of 4,200 gross tons.

CANAL WORK IN JANUARY, 1929.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of January, 1929.

BALBOA HEIGHTS, C. Z., *February 18, 1929.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of January, 1929:

NUMBER OF TRANSITS.

During the month 603 commercial vessels passed through the Canal. In addition to these, 7 nonseagoing launches measuring under 20 tons, and 119 vessels belonging to or chartered by the United States Government transited the Canal. There were also 2 transits of a Panaman Government vessel and 4 transits of vessels solely for repairs, on which no tolls were collected, making a total of 735 transits for the month, or a daily average of 23.71. The majority of the United States Government vessels were units of the Scouting Fleet transiting from the Atlantic to the Pacific to participate in the fleet maneuvers in and beyond the Gulf of Panama.

Tolls on the 603 commercial vessels amounted to $2,502,815.12, and on the launches to $81, a total of $2,502,896.12, or a daily average on all traffic of $80,738.58.

Total commercial traffic in January was the heaviest month's traffic since the opening of the Canal. The previous high marks for commercial traffic were as follows: Number of transits, 589, in December, 1927; Panama Canal net tonnage, 2,698,140: United States net tonnage, 2,055,648; registered gross tonnage, 3,359,731; registered net tonnage, 2,056,933; tolls collected, $2,443,029.39, all in December, 1928; and tons of cargo, 2,717,646, in October, 1927. January's tonnage figures will be found in this report under "Commercial traffic."

The regular periodic overhaul of Miraflores and Pedro Miguel locks was started on January 2 and will be completed about May 7. During this period the Canal is to be in operation 24 hours daily for the purpose of transiting such vessels as can not be accommodated during daylight hours.

The total numbers of craft of all kinds transiting the Canal during the month of January, 1929, as compared with the same month in 1927 and 1926, are shown in the following tabulation:

	January, 1929.	January, 1928.	January, 1927.
Commercial vessels	603	540	443
Noncommercial vessels (Army and Navy)	119	38	46
Launches (under 20 tons)	7	12	11
Panaman Government vessels	2		
Vessels for repairs	4	2	9
Totals	735	592	509

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	10	12	22
Pedro Miguel	25	38	63
Miraflores	24	36	60
Totals	59	86	145

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1929, to the end of January, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927–8	1928–9	1927–8.	1928–9.	1927–8.	1928–9.	1927–8.	1928–9.
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	$2,215,515.99	$2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
September	540	487	2,532,942	2,295,053	2,397,753	2,313,011	2,294,432.34	2,111,230.56
October	567	557	2,585,752	2,515,380	2,717,646	2,582,477	2,380,115.97	2,274,945.30
November	559	527	2,591,717	2,468,297	2,488,882	2,501,630	2,369,267.99	2,225,937.48
December	589	579	2,616,728	2,698,140	2,573,828	2,714,987	2,398,459.75	2,443,029.39
January	540	603	2,422,770	2,771,289	2,372,061	2,858,835	2,212,752.50	2,502,815.12
Totals	3,847	3,788	17,670,478	17,503,791	17,430,585	17,688,231	16,144,585.09	15,866,110.35

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for January, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly averages for the calendar year 1928:

	January, 1929.	January, 1928.	January, 1927.	Average per month for calendar year 1928.
Number of vessels	603	540	443	528
Panama Canal net tonnage	2,771,280	2,422,770	2,121,631	2,411,953
United States net tonnage	2,117,812	1,885,052	1,671,788	1,851,471
Registered gross tonnage	3,470,934	3,064,268	2,707,908	3,029,975
Registered net tonnage	2,122,121	1,831,538	1,636,647	1,835,554
Tolls	$2,502,815.12	$2,212,752.50	$1,984,750.71	$2,197,996.86
Tons of cargo carried	2,858,835	2,372,061	2,241,765	2,450,132

The average daily number of transits, tonnage, tolls, and cargo are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for calendar year 1928.
	January, 1929.	January, 1928.	January, 1927.	
Number of transits	19.45	17.42	14.29	17.31
Panama Canal net tonnage	89,396	78,154	68,439	79,080
Tolls	$80,735.97	$71,379.11	$64,024.54	$72,065.47
Tons of cargo carried	92,220	76,518	72,315	80,332

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of January, 1929, as compared with January, 1928 and 1927, are shown in the following tabulation:

	Average per vessel.		
	January, 1929.	January, 1928.	January, 1927.
Panama Canal net tonnage	4,596	4,487	4,789
United States net tonnage	3,512	3,491	3,773
Registered gross tonnage	5,756	5,675	6,112
Registered net tonnage	3,519	3,490	3,762
Tolls	$4,150.61	$4,097.69	$4,480.27
Tons of cargo (including vessels in ballast)	4,741	4,393	5,060
Tons of cargo (laden vessels only)	5,834	5,491	6,158

TOLLS.

At present tolls are collected at rates of $1.20 per net ton for laden vessels and 72 cents per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed $1.25 per ton nor be less than 75 cents per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessery, therefore, that the net tonnage of vessels transiting the Canal be determined both in accordance with the Panama Canal and the United States rules of measurement.

Due to this limiting proviso the tolls actually collected on laden vessels averaged $0.941 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.723 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of January, 1929, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian	$14,812.74	$14,062.20		$750.54
British	[1] 752,842.14	[1] 787,649.00	$34,806.86	
Chilean	11,873.75	12,440.00	566.25	
Colombian	1,901.45	1,629.00		272.45
Danish	37,280.39	34,307.20		2,973.19
Danzig	11,108.36	10,140.80		967.56
Dutch	69,797.24	76,506.20	6,708.96	
French	[2] 55,988.75	[2] 53,845.50		2,143.25
German	101,632.19	114,107.20	12,475.01	
Greek	40,135.79	38,693.00		1,442.79
Italian	58,682.41	58,636.20		46.21
Japanese	55,401.00	52,609.00		2,792.00
Norwegian	109,215.19	119,178.20	9,963.01	
Panaman	9,950.49	10,287.20	336.71	
Peruvian	8,198.48	12,343.40	4,144.92	
Spanish	18,723.75	18,825.00	101.25	
Swedish	47,471.00	43,840.40		3,630.60
United States	1,065,666.25	1,077,973.40	12,307.15	
Yugoslav	32,133.75	33,045.00	911.25	
Totals	2,502,815.12	2,570,117.90	82,321.37	15,018.59
Net increase for all traffic			67,302.78	

[1] Includes $2,400 collected for naval vessel at 50 cents per displacement ton.
[2] Includes $6,597.50 collected for naval vessel at 50 cents per displacement ton.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$12,336.07
United States foreign trade	789.71
United States–Canal Zone trade	[1] 818.63
Net increase	12,307.15

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in January, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian		1.73	1.73
British	.87	1.38	1.21
Chilean	.60	1.17	.96
Colombian	1.20	1.85	1.36
Danish	1.32	1.90	1.62
Danzig		1.80	1.80
Dutch	.47	1.52	1.04
French	.97	1.78	1.42
German	.96	1.42	1.19
Greek		1.84	1.84
Italian	.34	1.38	1.05
Japanese	1.03	1.59	1.30
Norwegian	1.22	1.76	1.57
Panaman	.73		.73
Peruvian	.09	.98	.59
Spanish	.05	1.39	1.12
Swedish	.88	2.30	1.85
United States	.90	1.55	1.27
Yugoslav		1.90	1.90
Average, January, 1929	.88	1.52	1.27
Average, January, 1928	.78	1.53	1.22
Average, January, 1927	.94	1.56	1.29

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of January, 1929, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	3	13,303	$12,847.50	53	278,631	$291,033.60
Ballast	43	228,477	164,661.06	.....	.....	.....
General cargo ships:						
Laden	191	850,420	786,738.85	243	1,103,527	1,023,500.75
Ballast	64	293,138	212,325.88	3	3,440	2,426.48
Noncargo-carrying ships:						
Naval	1	.....	2,400.00	1	.....	6,597.50
Yachts	1	344	283.50	.....	.....	.....
Totals	303	1,385,682	1,179,256.79	300	1,385,598	1,323,558.33
Method of propulsion:						
Steam	253	1,141,777	982,841.27	242	1,100,820	1,060,897.93
Motor	50	243,905	196,415.52	58	284,778	262,660.40
Totals	303	1,385,682	1,179,256.79	300	1,385,598	1,323,558.33

Of the 495 steam-driven vessels, 284 were oil burning, 198 coal burning, and 13 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of January, 1929. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as follows:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Aircraft tenders	1	[1] 11,000	$5,500.00	.....	.....	.....
Ammunition ships	.....	.....	.....	1	[3] 4,405	$5,506.25
Auxiliaries	1	[3] 2,969	3,711.25	.....	.....	.....
Battleships	5	[1] 122,650	61,325.00	.....	.....	.....
Cruisers	9	[1] 56,000	28,000.00	5	[1] 18,500	9,250.00
Destroyers	29	[1] 35,235	17,617.50	6	[1] 7,290	3,645.00
Destroyer tenders	2	[1] 21,200	10,600.00	.....	.....	.....
Hospital ships	1	[3] 3,963	2,972.25	.....	.....	.....
Mine layers	3	[2] 6,182	3,091.00	.....	.....	.....
Mine sweepers	8	[1] 7,600	3,800.00	1	[1] 950	475.00
Repair ships	1	[3] 3,771	2,715.12	.....	.....	.....
Submarines	17	[1] 13,336	6,668.00	3	[1] 1,854	927.00
Submarine tenders	1	[3] 2,872	2,154.00	.....	.....	.....
Supply ships	1	[3] 3,394	4,242.50	1	[3] 3,434	4,292.50
Tankers	2	[2] 11,772	14,126.40	.....	.....	.....
Tugs	4	[1] 3,575	1,787.50	2	[1] 2,000	1,000.00
U. S. Army vessels:						
Launches	2	[3] 20	15.00	2	[3] 20	15.00
Mine planters	3	[1] 3,624	1,812.00	4	[1] 4,832	2,416.00
Transports	2	[3] 7,816	9,770.00	.....	.....	.....
Tugs	2	[3] 274	205.50	.....	.....	.....
Totals, U. S. Government	94	.....	180,113.02	25	.....	27,526.75
Panaman Government vessels:						
Transports	1	[3] 98	73.50	1	[3] 98	73.50
Vessels for repairs:						
Tankers	2	[3] 3,189	2,391.75	2	[3] 3,189	2,391.75
Totals	97	.....	182,578.27	28	.....	29,992.00

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnnage.

The foregoing noncommercial vessels transiting the Canal during the month of January, 1929, carried cargo as follows: Atlantic to Pacific, 11,300 tons; Pacific to Atlantic, 3,147 tons; total, 14,447 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement transiting the Canal during the month of January, 1929. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific	2	14	$15.90	.....
Pacific to Atlantic	5	48	65.10	50
Totals	7	62	81.00	50

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of January, 1929, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving....tons	107,644	33,005	140,649
Local cargo shipped....tons	9,516	650	10,166
Transit cargo arriving....tons	2,843,050	2,907,926	5,750,976
Transit cargo clearing....tons	2,864,471	2,861,030	5,725,501
Cargo received for transshipment....tons	53,303	2,922	56,225
Cargo transshipped....tons	47,688	2,539	50,227
"Canal Zone for Orders" cargo:			
Number of receipts issued	71	36	107
Number of withdrawals	484	425	909
Tons received	3,224	641	3,865
Tons withdrawn	2,966	588	3,554
Packages received	8,861	8,966	17,827
Packages withdrawn	9,097	12,085	21,182
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Co	89	6	95
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Co....tons	27,564	217	27,781
Coal issued, miscellaneous:			
Panama Canal departments....tons	125	89	214
U. S. Army, excepting vessels....tons	47	10	57
Individuals and companies....tons	166	.....	166
Panama Railroad Company....tons	27	.....	27
Transferred to Navy....tons	10,316	.....	10,316
Total sales and issues....tons	38,245	316	38,561
Coal on hand, January 1, 1929....tons	38,261	.....	38,261
Coal on hand, February 1, 1929....tons	37,504	.....	37,504
Coal received during month....tons	37,488	.....	37,488
Coal received from Navy....tons	.....	316	316
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments....bbls	7,484.36	22,375.36	29,859.72
Panama Railroad Company....bbls	616.71	.....	616.71
U. S. Army and Navy....bbls	.....	1,380.42	1,380.42
Individuals and companies....bbls	.....	371.86	371.86
Total sales and issues....bbls	8,101.07	24,127.64	32,228.71
Fuel oil on hand, February 1, 1929....bbls	43,066.49	67,916.50	110,982.99
Diesel oil sold during January....bbls	168.33	1,342.00	1,510.33
Diesel oil received during January....bbls	.....	1,342.00	1,342.00
Diesel oil on hand, February 1, 1929....bbls	25,066.87	1,835.25	26,902.12
Miscellaneous transfers....bbls	975.99	1,600.55	2,576.54
Gasoline and kerosene pumped for The Panama Canal....bbls	8,420.81	10,623.01	19,043.82
Gasoline pumped for individuals and companies....bbls	802.26	19,920.86	20,723.12
Oil pumped for individuals and companies....bbls	616,950.65	389,726.17	1,006,676.82
Oil pumped for U. S. Shipping Board....bbls	3,020.57	2,791.91	5,812.48
Oil pumped for U. S. Navy....bbls	58,563.80	29,705.00	88,268.80
Total fuel oil, gasoline, and kerosene handled....bbls	697,003.48	479,837.14	1,176,840.62
Admeasurement of vessels:			
U. S. equivalent certificates issued	31	4	35
Measured for Panama Canal net tonnage	9	1	10
Remeasured for Panama Canal net tonnage	24	5	29
Panama Canal net tonnage corrected	4	10	14
U. S. equivalent tonnage corrected	8	18	26

	Cristobal.	Balboa.	Total.
Services of harbor equipment:			
Tugs, total operating hours	708¼	495	1,203¼
Launches, total operating hours	1,840	2,425	4,265
Revenue from tug service, pilotage, etc.:			
Tug revenue	21,876.80	14,246.25	36,123.05
Pilotage	22,348.00	9,292.00	31,640.00
Seamen	13,788.00	13,904.00	27,692.00
Launch service	2,625.05	3,901.00	6,526.00
Wharfage	20,509.95	5,529.40	26,039.35
Ships measured	280.00	50.00	33.00
Miscellaneous	2,235.20	998.00	3,233.20
Ships repaired at Panama Canal shops:			
Commercial	52	22	74
U. S. Army and Navy		9	9
Panama Canal equipment	9	9	18
Totals	61	40	101
Vessels dry-docked:			
Commercial	8	10	18
Panama Canal equipment	1	4	5
Totals	9	14	23
Clearances issued	357	311	668
Bills of health issued	352	313	665

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	755	4,196,503	2,693,901	795	4,489,918	3,082,200
Vessels entering port but not transiting Canal	75	351,501	216,461	96	570,778	547,690
Vessels transiting Canal and handling passengers and cargo at terminal ports	123	695,007	416,489	96	559,715	337,468
Ships clearing.						
All vessels, including those transiting Canal	753	4,216,514	2,708,042	646	3,605,448	2,225,511
Vessels clearing port but not transiting Canal	72	330,566	201,989	23	53,336	37,561
Vessels transiting Canal and handling passengers and cargo at terminal ports	121	695,416	417,581	94	551,619	326,082

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,649	827	2,476	76	181	257
From Pacific ports	229	228	457	437	326	763
Total disembarking	1,878	1,055	2,933	513	507	1,020
Embarking:						
For Atlantic ports	1,122	567	1,689	52	33	85
For Pacific ports	360	379	739	336	96	432
Total embarking	1,482	946	2,428	388	129	517
Remaining on board:						
From Atlantic to Pacific ports	1,674	2,415	4,089	1,958	2,613	4,571
From Pacific to Atlantic ports	739	1,158	1,897	916	1,353	2,269
From Atlantic to Atlantic ports	2,454	81	2,535			
From Pacific to Pacific ports				11	363	374
Total remaining on board	4,867	3,654	8,521	2,885	4,329	7,214
Total arriving	6,745	4,709	11,454	3,398	4,836	8,234
Total departing	6,349	4,600	10,949	3,273	4,458	7,731

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	303	49	16.1
Pacific to Atlantic	300	62	20.6
Totals	603	111	18.4

In addition to the aforesaid, 65 passenger-carrying vessels called at the port of Cristobal and 5 at Balboa without transiting the Canal, making a total of 181 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of January, 1929:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$2,865.87	$15,700.67	$37,808.78	$138.40	$7,922.66	$64,436.38
Government vessels	479.85	779.01	18,348.18	81.56	1,855.83	21,544.43
Panama Railroad vessels	.....	42.12	1,635.29	1,018.56	390.98	3,086.95
Total sales, January, 1929	3,345.72	16,521.80	57,792.25	1,238.52	10,169.47	89,067.76
Total sales, January, 1928	2,218.04	16,013.77	34,650.52	862.64	6,829.12	60,574.09
Total sales, January, 1927	2,542.76	25,752.50	64,002.45	819.65	10,651.28	103,768.64
Sales at Balboa to:						
Commercial vessels	2,355.59	11,847.22	23,650.00	414.25	4,668.22	42,935.28
Government vessels	2,408.57	5,689.53	27,332.39	176.50	15,565.53	51,172.52
Total sales, January, 1929	4,764.16	17,536.75	50,982.39	590.75	20,233.75	94,107.80
Total sales, January, 1928	1,763.22	14,454.53	37,851.35	734.46	5,831.39	60,634.95
Total sales, January, 1927	1,559.71	10,236.79	30,148.42	467.66	3,781.58	46,194.16

The aggregate sales to Government vessels during the month was $72,716.95; to Panama Railroad vessels, $3,086.95, and to other commercial vessels, $107,371.66; making the total sales to all vessels $183,175.56.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of January, 1929, as compared with the corresponding month in 1928 and 1927:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Jan., 1929.	Jan., 1928.	Jan., 1927.
Gatun	289	270	559	12	39	51	610	537	451
Pedro Miguel	270	279	549	13	52	65	614	567	471
Miraflores	265	258	523	6	34	40	563	562	468
	Number of vessels put through locks.								
Gatun	300	303	603	43	114	157	760	608	554
Pedro Miguel	300	303	603	65	147	212	815	664	580
Miraflores	300	303	603	61	141	202	805	666	570

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	126	128	125
Panama Canal equipment	22	63	60
Launches (under 20 tons)	3	15	11
Panaman Government vessels	2	2	2
Vessels for repairs	4	4	4

The total consumption of water for lockages and loss in leakage was as follows in January, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	2,506,200,000	2,158,270,000	1,780,270,000
Leakage	20,000,000	30,500,000	20,000,000
Totals, January, 1929	2,526,200,000	2,188,770,000	1,800,270,000
Totals, December, 1928	2,291,000,000	2,072,370,000	1,880,030,000
Totals, January, 1928	2,246,010,000	1,771,190,000	1,760,420,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of January, 1929, are shown in comparative form in the following tabulation:

	January.		January—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	C.f.s.	*C.f.s.*	*C.f.s.*	*C.f.s.*	*C.f.s.*
Discharge of Chagres River at Alhajuela	1,691	2,160	5,050	682	1,970
Maximum momentary discharge for the month	6,845	3,460	[1] 50,200	.....	.....
Gatun Lake watershed, total yield	2,975	3,396	9,298	1,473	3,109
Gatun Lake watershed, net yield	2,143	2,582	8,644	628	2,298
Draft on Gatun Lake for lockages and power	3,275	2,859	3,275	[2] 987	[2] 2,166

[1] January 29, 1909. [2] Does not include January, 1914.

The total yield of the Gatun Lake watershed for January was 4 per cent below the 16-year average, or 2,975 c. f. s., compared with an average of 3,109 c. f. s. Deferred run-off from the December storms was responsible for this approximately normal yield. Maximum and minimum total yields of record are 9,298 c. f. s. in 1922 and 1,473 c. f. s. in 1926, respectively. The lake varied in elevation from 87.10 feet on the 1st to 86.16 feet on the 31st; averaged 86.74 feet, and ended at an elevation of 86.20 feet. Miraflores Lake varied from an elevation of 54.72 feet on the 17th to 53.52 feet on the 18th; averaged 54.11 feet, and ended at an elevation of 54.13 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 12th, 17th, 19th, 20th, 22d, 23d, and 24th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,507,100 kilowatt hours, and the computed water consumption was 4,108,167,458 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 3,500 kilowatt hours, with a fuel oil consumption of 9.36 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were completed on 44 vessels during the month. There were 358 work orders issued during the month, as compared with 355 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 61 vessels at Cristobal and 40 at Balboa. Nine vessels were dry-docked at Cristobal and 13 at Balboa. Work on four Peruvian submarines and annual overhaul and underwater work on Peruvian cruiser *Almirante Grau* were completed during the month. The steamers *Caroni* and *Monagas* were dry-docked for annual overhaul to deck and engineering departments. Minor running repairs were completed on four United States submarines during the month.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. On the Alhajuela Road, 6,000 feet were cleared, and 11,675 cubic yards of earth and 4,610 cubic yards of rock were excavated in connection with grading.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 783,839,000 gallons.

DREDGING DIVISION.

South Cucaracha Slide showed a slight movement during the month, while West Lirio, East and West Culebra slides remained quiescent. There were no other slides and no delays to shipping during the month.

The total excavation during January was 439,000 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Project No. 2, Lirio curve	6,600	59,300	65,900
Canal prism, Pacific entrance—			
Project No. 1	9,850	67,750	77,550
Maintenance	262,700	18,650	281,350
Balboa inner harbor—			
Project No. 1		13,700	13,700
Maintenance	500		500
Totals	279,600	159,400	439,000

The new 24-inch Diesel-electric pipeline suction dredge *Las Cruces*, built by the Ellicott Machine Corporation, Baltimore, arrived at the Isthmus on January 11, and final adjustment and conditioning were begun to prepare the dredge for service in the Pacific sea level section.

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and sixty-two trips were made, and 430 Panama Canal, 466 U. S. Army, and 2,933 other vehicles, a total of 3,829, were ferried across the Canal.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on January 31, 1929, totaled 21,795, composed of 7,509 Americans, 2,717 of whom were men, 2,247 women, and 2,545 children; 243 Europeans, 100 of whom were men, 37 women, and 106 children; and 14,043 West Indians, 4,236 of whom were men, 2,596 women, and 7,211 children. The total number of persons in quarters on January 31, 1928, was 21,404.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of January 16, 1929, with a comparison of the working force for the preceding month and for January, 1928:

	As of January 16, 1929.			Total employees.	
	Gold.	Silver.	Total.	December, 1928.	January, 1928.
Operation and Maintenance:					
Office	44	52	96	95	76
Electrical	153	202	355	330	331
Municipal Engineering	114	1,272	1,386	1,233	887
Lock Operation	283	1,168	1,451	999	865
Dredging	181	920	1,101	1,079	1,032
Mechanical	430	779	1,209	1,339	1,392
Marine	209	713	922	957	756
Fortifications	25	328	353	300	301
Totals	1,439	5,434	6,873	6,332	5,640
Supply Department:					
Quartermaster	195	1,775	1,970	1,961	1,920
Subsistence	8	116	124	110	113
Commissary	217	1,287	1,504	1,489	1,272
Cattle Industry	6	174	180	150	285
Hotel Washington	8	102	110	111	109
Transportation	61	217	278	268	253
Totals	495	3,671	4,166	4,089	3,952
Accounting Department	197	7	204	204	206
Health Department	268	814	1,082	1,075	1,131
Executive Department	514	298	812	813	790
Totals	979	1,119	2,098	2,092	2,127
Panama Railroad Company:					
Superintendent	49	317	366	353	303
Transportation	68	129	197	181	178
Receiving and Forwarding Agency	91	1,766	1,857	1,775	1,401
Coaling Stations	48	313	361	293	295
Totals	256	2,525	2,781	2,602	2,177
Grand totals, January, 1929	3,169	12,749	15,918	.....	.....
Grand totals, December, 1928	3,120	11,464	.....	15,115	.....
Grand totals, January, 1928	2,998	10,898	.....	.....	13,896

Additions to the gold force on the Isthmus in January were as follows: Employed in the United States, 3; reemployed in the United States, 8; employed on the Isthmus, 35; reemployed on the Isthmus, 23; total, 69. Separations from the gold force totaled 36, as follows: Resigned, 20; discharged, 12; retired, 2; died, 2. At the end of the month there were on file 153 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 177 deaths occurred during the month of January, 1929, among the population of the Canal Zone and the cities of Panama and Colon, which is equivalent to an annual death rate of 16.40 per 1,000 population. The leading causes of death were: Pneumonia (broncho and lobar), 29; tuberculosis (various organs), 21; organic diseases of the heart, 20; nephritis (acute and chronic), 13; and diarrhea and enteritis, 8. There were 7 deaths from apoplexy, 6 from cancer, 2 each from measles, dysentery, and tetanus, and 1 each from typhoid fever, leprosy, and erysipelas. There were 27 deaths among nonresidents. These are not included in the above statistics.

There were 314 live births, and 19 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 30.85 per 1,000 population. Deaths among children under 1 year of age numbered 29, giving an infant mortality rate based on the number of live births reported, of 92.36.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during January was 127, of whom 31 were employees (6 white and 25 colored), 20 were members of employees' families (1 white and 19 colored), 4 were Canal Zone agriculturists, 19 were other civilian nonemployees, and 53 were Army and Navy personnel. Of the 51 employees and members of employees families, 35 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick. There were 3 deaths from malaria, all colored nonemployees; two from Colon and one from Paraiso.

Five cases of smallpox were admitted to Gorgas Hospital; all of these were from the same building in Colon as the one case reported in December. Also, two nonresidents suffering from smallpox were admitted, one from Colombia and one from Chorrera, Republic of Panama.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $478,204.20, of which $443,645.63 was for the Department of Operation and Maintenance and $34,558.57 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap, and obsolete and second-hand material amounted to $53,440.75.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of December, 1928, as compared with December, 1927, and the figures for the first six months of the current fiscal year as compared with the same period in the fiscal year 1928.

It is impossible to submit the figures for the month of January, at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	December, 1928.	December, 1927.	To end of December.	
			This year.	Last year.
Tolls	$2,443,113.24	$2,398,569.75	$13,361,436.11	$13,932,396.62
Other receipts	371,885.45	327,004.90	1,960,985.10	1,763,048.94
Total transit revenues	2,814,999.69	2,725,574.65	15,322,421.21	15,695,445.56
Total transit expenses	1,094,233.32	1,010,220.34	6,332,843.17	5,943,066.07
Net transit revenues	1,720,766.37	1,715,354.31	8,989,578.04	9,752,379.49
Three per cent capital charge	616,431.64	611,878.90	3,695,521.90	3,665,289.80
Transit surplus	1,104,334.73	1,103,475.41	5,294,056.14	6,087,089.69
Business revenues	1,347,569.14	1,407,258.55	7,958,368.71	7,599,234.30
Business expenses	1,267,242.35	1,327,406.60	7,522,087.54	7,160,048.95
Net business revenues	80,326.79	79,851.95	436,281.17	439,185.35
Three per cent capital charge	60,008.61	61,562.92	390,222.17	389,471.61
Business surplus	20,318 18	18,289.03	45,959.00	49,713.74

	December, 1928.	December, 1927.	To end of December	
			This year.	Last year.
Combined revenues	$4,162,568.83	$4,132,833.20	$23,280,789.92	$23,294,679.86
Combined expenses	2,361,475.67	2,337,626.94	13,854,930.71	13,103,115.02
Net revenues	1,801,093.16	1,795,206.26	9,425,859.21	10,191,564.84
Three per cent capital charge	676,440.25	673,441.82	4,085,844.07	4,054,761.41
Combined surplus	1,124,652.91	1,121,764.44	5,340,015.14	6,136,803.43

Respectfully,

H. BURGESS,
Governor.

Low Temperatures for Canal Zone.

Records of low temperatures occurring over the Canal Zone and adjacent areas during the 5 days, January 27 to 31, 1929, inclusive, are reported by the section of surveys. The lowest temperature recorded was 59° F., at Alhajuela on January 30. This equals the lowest temperature recorded during the period of American occupation, from 1904, 59° F. having been recorded at Bas Obispo on February 9, 1907, and at Alhajuela on February 4, 1924.

A geologist at San Juan, 10 miles above Alhajuela, on the morning of January 30, reported a sling-psychrometer reading of 58.5° F. and it is possible that lower temperatures occur in the upper Chagres valley. However, 59° F. is the lowest temperature yet registered officially by recording thermometers.

Hammond Line, Inc., to Establish New Intercoastal Service.

According to published statements, the sailing of the steamer *New Britain* on February 15 from Philadelphia and on February 19 from New York to Los Angeles, San Francisco, Oakland, Portland, Seattle, and Tacoma, will inaugurate a sevice of the new Hammond Line, Inc., which is to operate in the intercoastal trade. It is further stated that sailings every two weeks are to be provided as soon as possible.

The principal officials of the Hammond Line, Inc., including the president and general manager, Mr. A. P. Hammond, are said to have been officials of the California & Eastern Steamship Company.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending February 23, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Kenowis	U. S. Government	February 6	February 8	1,614	10
Santa Cruz	Grace Line	February 9	February 9	.....	1
Laguna	Pacific Steam Navigation Co	February 12	February 12	.....	50
Denderah	Kosmos Line	February 12	February 13	413	3
Rakuyo Maru	Nippon Yusen Kaisha	February 12	February 13	.....	46
Amsterdam	Dutch Line	February 16	February 17	297	.....
City of San Francisco	Panama Mail S. S. Co	February 16	February 17	.....	4
Nora	Grace Line	February 16	February 17	4,655	.....
George Washington	Fred Olsen & Co	February 17	February 18	1,287	.....
Ecuador	Panama Mail S. S. Co	February 18	February 18	94	.....
El Salvador	Grace Line	February 18	February 19	160	.....
Buenos Aires	Spanish Line	February 20	February 21	159	.....
Frost	Hans Ericson	February 20	February 20	235	.....
California	Panama-Pacific Line	February 22	February 23	.....	162

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending February 16, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cali	North German Lloyd		February 10		235
Colombia	Panama Mail S. S. Co		February 10		717
Santa Cruz	Grace Line		February 10		410
Dinteldijk	Holland-American Line		February 10		101½
Rialto	Nav. Libera-Triestina		February 10		198
Oropesa	Pacific Steam Navigation Co		February 10		15
Smyrna	North German Lloyd	February 10	February 11	597	337
Macabi	United Fruit Co	February 10	February 11	86½	632½
Saramacca	United Fruit Co	February 10	February 11	33½	41
Juan Sebastian Elcano	Spanish Line	February 10	February 13	199	304
Wanks	Standard Fruit & S. S. Co		February 11		3½
Heredia	United Fruit Co		February 11		120
Santa Elisa	Grace Line	February 11	February 11	27½	(2)
Denderah	Hamburg-American Line	February 11	February 12	9	339½
Laguna	Pacific Steam Navigation Co	February 12	February 12	(1)	230
La Plata Maru	Osaka Shosen Kaisha	February 12	February 13	68	(2)
Oklahoma	French Line	February 12	February 13	576½	(2)
Moveria	Donaldson Line	February 12	February 14	(1)	368
Caldas	National Navigation Co		February 14		275
Esparta	United Fruit Co	February 13	February 14	1,659	423
Zacapa	United Fruit Co	February 13	February 14	665	234
Cristobal	Panama R. R. S. S. Line	February 13		3,622	
Minden	North German Lloyd	February 13	February 14	12	50
Ariguani	Elders & Fyffes, Ltd	February 13	February 14	10	63
Suriname	United Fruit Co	February 13	February 14	871	86
Glamorganshire	Pacific Steam Navigation Co	February 13	February 15	(1)	749
Pacific Grove	Furness, Withy & Co	February 13	February 16	(1)	332
Linda S	R. Feuillebois	February 14	February 14	(1)	31
Ulua	United Fruit Co	February 14	February 15	701	206
Uribe	Estrada G. Hermanos	February 14		593	
Daghild	Anglo-Saxon Petroleum Co	February 14	February 15	13,535	(2)
Cerigo	Hamburg-American Line	February 14		219	
Atlantian	Leyland Line	February 14	February 15	565	(2)
Alvarado	Pacific Steam Navigation Co	February 14	February 16	1,160	43
Bogota	Pacific Steam Navigation Co	February 15	February 15	109½	(2)
Coppename	United Fruit Co	February 15	February 15	76	164
Buenaventura	Panama R. R. S. S. Line	February 15	February 15	239	(2)
Hessen	Hamburg-American Line	February 15	February 16	(1)	1,278
Grunewald	Hamburg-American Line	February 15	February 16	180	65½
Atlantida	Standard Fruit & S. S. Co	February 15	February 16	480	454
Sutermeo	Grace Line	February 16	February 16	(1)	72
San Pablo	United Fruit Co	February 16		22	
William M	R. Feuillebois	February 16	February 16	(1)	43½
Wanks	Standard Fruit & S. S. Co	February 16		81	
Mandeville	United Fruit Co	February 16		85	
George Washington	Fred Olsen	February 16	February 16	93	(2)
City of San Francisco	Panama Mail S. S. Co		February 16		3,293
Manizales	North German Lloyd	February 14	February 16	645	160
Amsterdam	Royal Netherlands S. S. Co	February 14	February 16	350	268
Acajutla	Pacific Steam Navigation Co	February 14		1,102	

(1) No cargo discharged. (2) No cargo laded.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Publication of Notices and Circulars of Interest to Shipping

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, February 23, 1929.

THROUGH THE CANAL.—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Laurel Branch.	17	1.40	17	6.20	17	17.05	17	18.12	British	F. & W. Ritson	360 0	46 0	23.2	Pt. Talbot, Eng	Mollendo, Peru	(7)	4,773	4,182	3,047
Texmar	17	1.45	17	6.25	17	18.05	17	19.12	American	Calmar S. S. Corp	410 5	54.0	22.0	Baltimore, Md	Seattle, Wash	Steel, general	6,776	6,567	4,909
Condor	17	6.35	17	7.50	17	19.16	17	20.16	Chilean	R. W. James & Co.	356 0	45.3	22.0	New York, N. Y.	Corral, Chile	General	794	4,421	3,063
Highland Heather [3]	17	6.40	17	7.45	17	19.23	17	20.16	British	Royal Mail S. P. Co	390.0	52.0	18.0	S. Shields, Eng	Seattle, Wash	Ballast		6,275	4,549
Texan	16	22.15	17	8.40	17	20.25	17	21 05	American	Amer.-Hawaiian Line	471.0	57.2	19 8	Boston, Mass	Portland, Oreg	General	4,196	9,154	6,966
Lisbon Maru	17	9 23	17	9.45	17	21.17	17	22.15	Japanese	Nippon Yusen Kaisha	445.0	58.0	22.6	Baltimore, Md	Kobe, Japan	(8)	5,481	8,015	5,849
Esparta	17	2.50	17	11.30	17	22.20	17	23.25	American	United Fruit Co	330.6	44 0	19 1	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	815	3,673	2,367
Scottsburg	17	14.45	17	15.20	18	19.40	18	20 50	American	Tampa Interocean Co.	419.5	56.5	30 0	Pt. Arthur, Tex	Far East	(9)	9,526	8,696	6,316
Medusa [4]			18	00.55	18	6.10			American	U. S. Navy	460.0	61.0	12.6	Gatun Lake, C. Z.	Balboa, C. Z				
El Salvador	17	7.00	18	6 00	18	18.23	19	1 58	American	Panama Mail S. S. Co.	360 2	52.0	24.5	New York, N. Y.	San Francisco, Cal.	General	956	5,710	4,023
Aleksandar I	18	6.10	18	7.20	18	20.32	18	21.50	Yugoslav	Baburizza & Co	425 0	56.0	14 0	Marseillaise, France	Antofagasta, Chile	Ballast		6,561	4,701
Belgium Maru	18	11.05	18	11.25	18	21.35	19	3 44	Japanese	Kokusai Kisen Kaisha	385.0	51.0	14.0	Pto. Cabello, Venz	Arica, Chile	Ballast		6,219	4,611
King Malcolm [5]	18	13.00	18	13.20	18	22.40	19	8 30	British	Dodd-Thomson & Co	400.3	59.0	24.8	Antwerp, Belgium	Auckland, N. Z.	Basic slag	8,451	7,367	5,561
Vancouver Maru	18	15.40	18	17.15	19	18 40	19	19.50	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.9	Galveston, Texas	Kobe, Japan	General	6,750	5,919	4,389
Mabriton	18	17.10	18	18.15	19	20.10	19	21 00	British	R. Chapman & Son	412.6	55.5	16.6	Algiers, Algeria	Vancouver, B. C.	Ballast		6,823	4,797
Dio	18	18.20	18	20.45	19	21 23	19	22.30	American	Redwood Line	381.0	52.2	23.0	New Orleans, La	San Francisco, Cal.	(10)	6,062	5,708	4,131
Edw. P. Nones [4]			18		18	15 23			American	U. S. Army	101.0	23.5		Cristobal, C. Z	Gatun, C. Z				
Cid	17	16.22	19	8 30	19	18 46	19	20.15	British	Pacific Steam Nav. Co	265.0	41 2	16.0	New York, N. Y.	Callao, Peru	General	729	2,746	1,626
Ville de Papeete	18	16 00	19	9.05	19	20 06	19	21 20	French	French Phosphate Co	164.0	29.5	13 10	Havre, France	Tahiti, Society Is	General	92	685	261
Gaasterdijk	18	6.05	19	9.30	19	22.25	19	23 15	Dutch	Holland-American Line	450.0	58.0	17.10	Rotterdam, Holland	Vancouver, B. C.	General	2,214	9,038	6,164
Willbabco	18	23.35	19	11.30	19	23.28	20	00 48	American	Williams S. S. Line	468 0	58.0	20 0	Boston, Mass	Seattle, Wash	General	6,216	8,460	6,162
Keelung	19	2.35	19	14.00	20	00.29	20	1 39	British	Norton, Lilly & Co	413.0	52.0	20 6	New York, N. Y.	Dunedin, N. Z	General, case oil	2,336	6,237	4,537
Uganda	19	9.20	19	15.25	20	1 27	20	2.40	British	Wessel, Duval & Co	410.0	52 2	16 7	Newport News, Va.	Chile	Ballast		5,593	4,069
El Lobo [1]	19	11.35	19	16.04	20	2.38	20	3 20	British	Atlantic Refining Co	385.0	51.0	18 0	New York, N. Y.	La Libertad, Ecad.	Ballast		4,851	3,326
Sagadahoc	19	13.15	19	17.40	20	3.47	21	22.00	American	Isthmian S. S. Lines	420.5	54.2	27.0	Baltimore, Md	Tacoma, Wash	Steel, general	8,772	7,340	5,360
Artemisia	19	14.18	19	19.15	20	4.47	20	6.07	British	Gueret, Ll'lyn & Mer'tt	452.0	52.0	26.10	Newcastle, Eng	New Caledonia	Coal, coke	6,500	7,828	5,728
L-10 [5]			19		19	13.59			American	U. S. Army				Cristobal, C. Z	Gatun, C. Z				
No. 31057 [6]			19		19	13.59			American	United Fruit Co				Cristobal, C. Z	Gatun, C. Z.			15	15
Amerikaland [3]	19	16.55	20	6.30	20	14.57	20	21 18	Swedish	Ore S. S. Corp	561.0	72.0	22.0	New York, N. Y.	Cruz Grande, Chile	Ballast		15,563	4,496
Britta [1 3]	19	18.05	20	6.35	20	15.50	20	19.20	Norwegian	A. H. Mathessen	407.8	54.7	21.0	Amsterdam, Holl	Los Angeles, Calif.	Ballast			
Kina	19	21.15	20	7.35	20	18.58	20	20 30	Danish	Knut Knutsen	385.0	53.3	26.0	Brevik, Norway	Corral, Chile	General	6,346	6,090	4,623
Hawaiian	19	21.50	20	7.42	20	19.55	20	21.18	American	Amer.-Hawaiian Line	404.0	54.0	18.6	Boston, Mass	Seattle, Wash	General	3,090	6,766	4,767
Fordefjord [3]	19	23.35	20	8.50	20	20.58	20	22.00	Norwegian	Isbrandtsen Moller Co	378.0	50.2	26.0	New York, N. Y.	Manila, P. I	General	6,550	5,572	4,134
Lincoln Ellsworth [2 3]	20	2.20	20	9.40	20	22.00	20	23.02	Norwegian	General Petroleum Co.	385.3	55.0	19 0	London, England	San Francisco, Cal.	Ballast		5,786	3,627
San Lamberto [1]	20	3.47	20	11.05	20	23.00	21	00.27	British	Anglo-Mexican Pet. Co.	395.6	55.0	27.0	Aruba, D. W. I	Antofagasta, Chile.	Fuel oil	8,690	6,741	4,345

[1] Tanker. [2] Repair ship. [3] Motor ship. [4] Tug. [5] Launch. [6] Barge. [7] Patent fuel and coke. [8] Tobacco, tinplate, cotton, etc. [9] Cotton, phosphate, rock, and oil products. [10] Sulphur, coke, and general.

Andrea F. Luckenbach..	20	4.05	20	12.15	20	24.00	21	1.50	American...	Luckenbach Line.....	496.0	68.0	21.0	Boston, Mass.....	Tacoma, Wash ...	General.....	4,891	11,487	8,762
Aachen.....	19	17.55	20	14.25					German...	North German Lloyd..	431.0	56.4	26.8	Hamburg, Germany	San Antonio, Chile.	General.....	6,659	7,196	4,956
Altair [1].....	20	6.20	20	15.00	21	2.15	21	3.25	American...	Standard Oil Co.....	430.0	59.0	19.0	New York, N. Y..	Los Angeles, Calif.	Ballast.....		7,695	5,402
Illinois [1].....	20	13.48	20	18.00	21	1.15	21	2.14	American...	The Texas Co.....	416.8	56.1	21.6	Providence, R. I...	Wilmington, Calif.	Ballast.....		6,336	4,301
Munbeaver....	20	16.05	20	18.25	21	3.30	21	7.10	American...	Munson S. S. Line.....	384.0	51.0	22.4	Baltimore, Md.....	Seattle, Wash.....	General.....	4,877	5,571	4,033
Illinois.....	19	12.50	20	19.30	21	4.20	21	5.27	French.....	French Line	400.0	51.6	23.0	Havre, France.....	Coronel, Chile.....	General.....	4,818	7,150	5,330
Trinidad [11].....			20		20	15.21			American...	San Blas Develop. Co..				Cristobal, C. Z.....	Gatun, C. Z	Ballast.....		3	3
Otira.....	20	16.10	21	6.20	21	19.45	21	20.50	British.....	Shaw, Savill & Albion .	450.0	58.1	25.6	Newcastle-on-Tyne	Auckland, N. Z....	General.....	5,153	8,220	5,342
Wearpool	20	18.25	21	6.30	22	2.30	22	3.05	British.....	Canadian Producers Co.	390.0	55.6	14.0	River Tyne, Eng...	Estevan, Sask.....	Ballast.....		5,920	4,318
Preradovic.....	20	23.30	21	7.45	21	21.58	21	23.10	Yugoslav...	Gibl s and Sons	420.5	54.5	19.0	Plymouth, England	Taltal, Chile	Ballast.....		6,362	4,722
Lio [1 12].....	21	7.15	21	7.50	21	23.06	22	00.24	American...	Standard Transp. Co...	431.0	59.0	22.0	New York, N. Y..	San Francisco, Cal.	Ballast.....		7,846	5,112
Santa Maria [12].	21	5.25	21	9.08	21	20.45	22	1.50	American...	Grace Line.....	466.0	64.0	23.6	New York, N. Y..	Talcahuano, Chile.	General.....	3,713	10,626	6,680
Eleanor Christenson..	21	11.18	21	11.35	22	00.17	22	1.20	American...	Christenson S. S. Co...	410.6	54.3	21.0	Baltimore, Md....	Seattle, Wash.....	General	5,193	6,572	4,788
Galveston [13]..	21	7.25	21	12.40	21	23.45			American...	U. S. Navy.....	292.0	44.0	18.11	High seas	Balboa, C. Z				
Honduras.....	18	7.25	21	12.55	22	1.25	22	2.30	French ...	French Line	404.9	51.7	19.1	Havre, France.....	Talcahuano, Chile.	General	1,486	6,020	4,312
Perene.....	19	21.05	21	14.22	22	1.37	22	2.45	Peruvian...	Peruvian Line	270.0	39.0	18.0	New York, N. Y..	Callao, Peru.....	Coal, general....	2,042	2,168	1,529
Orbita	21	15.25	22	6.12	22	17.37	22	18.50	British.....	Pacific Steam Nav. Co.	550.3	67.3	30.0	Liverpool, England	Talcahuano, Chile	General.....	5,590	16,844	11,731
Lochkatrine [12]	21	00.30	22	6.25	22	20.58	22	21.55	British.....	Royal Mail S. P. Co....	485.0	62.0	19.9	Rotterdam, Holland	Vancouver, B. C ..	General, bananas	1,308	10,802	7,595
California.....	22	6.20	22	7.30	22	18.38	23	3.15	American...	Panama-Pacific Line...	574.4	80.3	27.0	New York, N. Y..	San Francisco, Cal.	General.....	3,787	24,596	17,565
Bethore.....	21	6.45	22	7.30	22	22.05	22	23.05	American...	Ore S. S. Corp	550.3	72.2	22.10	Norfolk, Va.....	Cruz Grande, Chile	Ballast.....		15,476	4,354
President Monroe.....	22	6.42	22	8.35	22	19.45	23	00.30	American...	Dollar Line.....	502.0	62.0	27.10	New York, N. Y..	San Francisco, Cal.	General.....	4,826	12,023	8,195
Visurgis.....	18	13.28	22	8.40	22	20.54	22	21.55	German...	Roland Line.....	231.2	37.0	15.5	Cristobal, C. Z....	Puntarenas, C. R.	General.....	2,290	1,406	855
Sunelseco.....	22	6.20	22	8.50	22	23.15	23	00.30	American...	Transmarine Lines....	324.0	46.2	18.9	Mobile, Ala ...	Seattle, Wash....	General	2,508	3,984	2,612
Somme [14].....	22	6.35	22	9.55	23	00.32	23	18.44	American...	U. S. Army.....	448.0	58.0	20.0	New York, N. Y..	San Francisco, Cal.	Military stores	612		
Davanger [1].....	20	2.40	22	12.45	22	23.30	23	00.30	Norwegian.	Anglo-Saxon Pet. Co ..	425.0	56.8	19.8	Curacao, D. W. I.	Los Angeles, Calif	Ballast.....		7,126	4,916
Albert Vogler..	21	15.55	22	14.10	23	1.47	24	18.38	German...	Hamburg-American Line	424.0	54.8	22.10	Hamburg, Germany	Valparaiso, Chile..	General.....	5,968	7,173	5,514
Acajutla.....	14	15.00	22	15.00	23	00.52	23	1.50	British.....	Pacific Steam Nav. Co.	215.7	33.5	17.6	Cristobal, C. Z....	Champerico, Guat	General.....	1,113	1,273	706
Ivo Racic.....	22	1.40	22	15.20	23	1.56	23	3.15	Yugoslav...	Baburizza & Co.....	350.4	49.0	23.11	Spalato, Yugoslav.	Antofagasta, Chile	Cement	5,226	4,476	3,288
Andromede....	21	16.40	22	16.55	23	2.50	23	3.45	French.....	Messageries Maritimes	450.0	57.0	28.8	Dunkirk, France..	Noumea, N. Calid	General	2,588	7,984	5,472
Lena Luckenbach	22	6.05	22	17.55	23	3.54	23	5.10	American...	Luckenbach Line.....	425.0	53.8	21.0	New Orleans, La..	Seattle, Wash.....	General.....	6,211	7,217	5,295
Paul Shoup [1].	22	11.20	22	19.25	23	4.54	23	6.05	American...	Tidewater Oil Co	424.4	58.2	21.9	New York, N. Y..	San Francisco, Cal.	Ballast.....		7,333	5,182
Uribe.....	14	18.40	22	19.40	23	5.05	23	15.15	Colombian.	Colomb. Maritime Co ..	227.0	31.0	13.4	Cristobal, C. Z....	Buenaventura, Col.	General.....	736	1,154	663
Tisnaren [12]...	22	12.35	23	6.20	23	14.47	23	19.30	Swedish....	Transatlantic S. S. Co.	436.0	56.0	17.6	Gothenburg, Swed	Los Angeles, Calif.	General.....	2,598	7,501	5,346
Hazelside	22	14.16	23	6.35	23	17.21	23	18.44	British.....	Charlton-McAllum Co..	395.0	52.9	16.0	Genoa, Italy	Willamate, Wash.	Ballast.....		5,676	4,200
Dean Emery [1]..	22	21.30	23	7.30	23	18.25	23	19.30	American...	Huastcca Petroleum Co.	429.3	59.2	18.0	New York, N. Y..	Los Angeles, Calif	Ballast.....		7,709	5,517
Watertown [1]..	22	22.12	23	7.25	23	19.25	23	20.59	American...	Cities Service Corp....	416 9	56.2	21.0	New York, N. Y..	Los Angeles, Calif	Ballast.....		6,717	4,778
Tiger [1].....	23	2.15	23	8.27	23	20.29	23	21.50	American...	Standard Transp. Co...	410.0	56.0	22.0	New York, N. Y..	Los Angeles, Calif	Ballast.....		8,201	6,207
Myrtle.....	23	3.10	23	8.50	23	21.34	23	22.39	American...	Quaker Line.....	426 5	54.0	21 6	Philadelphia, Pa...	Seattle, Wash.....	General.....	4,368	6,755	4,895
Alaska	22	18.15	23	10.05	23	22.40	23	23.28	French ...	French Line	425.0	54.8	18.0	Havre, France....	Vancouver, B. C..	([16])	1,316	6,990	4,854
Gustaf E. Reuter [1 12]..	23	4.10	23	10.30	23	24.00	24	2.45	Swedish....	Union Oil Co	419.0	55.0	19.0	Rouen, France....	Los Angeles, Calif	Ballast.....		6,384	4,497
Planter.....	21	17.00	23	13.13	24	1.04	24	2.07	British.....	T. & J. Harrison.....	420.0	54.5	20.2	Liverpool, England	Vancouver, B. C.	Ballast.....		6,558	4,621
Floreana [15]....	19	10.55	23	14.50	24	2.38	24	9.20	Colombian.	Colombian Transp. Co	150 0	27.2	9 11	Cristobal, C. Z	Buenaventura, Col.	General	350	410	307
Point Sur.....	23	12.55	23	15.18	24	00.05	24	1.04	American...	Gulf-Pacific Line	324.0	46.0	20.9	Corpus Christi, Tex	Vancouver, B. C..	General.....	3,389	3,984	2,612
Willsolo.....	23	10.49	23	16.20	24	2.15	24	3.15	American...	Williams S. S. Line....	435.0	57.6	20.0	Baltimore, Md....	Tacoma, Wash....	General.....	3,849	7,983	5,882

[1] Tanker. [11] Launch. [12] Motor ship. [13] Cruiser. [14] U. S. Army transport. [15] Motor schooner. [16] Iron, steel, general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
William Blumer	16	14 30	17	5.20	17	13.00	17	13.45	Norwegian.	C. H. Sorensen & Sons	356.3	48 8	23.0	Junin, Chile.	Savannah, Ga.	Nitrates	5,904	.....	.....
Patrick Henry	16	19.45	17	6.40	17	14.20	17	14.20	American	American-Pioneer Line	455.0	60.0	27.0	Shanghai, China.	New Orleans, La.	[20]	10,342	8,987	6,612
Tresillian	17	1.00	17	7.22	17	15.45	17	17.50	British	Hain S. S. Co	400.0	53.0	24.0	Vancouver, B. C.	Oran, Algeria	Wheat	7,200	6,193	4,465
Walucia III [17]	15	15.45	17	7.33	17	14.30	18	18 45	American	N. B. Woolworth	169 5	26.0	....	Balboa, C. Z	New York, N. Y.	Ballast	.....	530	240
Riverton	17	4.00	17	8.41	17	17.15	17	18.15	British	R. Chapman & Son	409 6	54 0	25.0	Vancouver, B. C.	Hull, England	Wheat	8,062	3,464	2,473
Takaoka Maru	17	6.15	17	9.45	17	17.42	17	21.35	Japanese	Nippon Yusen Kaisha	445.0	58 0	25.0	Manila, P. I.	New York, N. Y.	General	9,447	7,989	5,856
Royalstar	17	7.43	17	11.10	17	19 17	18	5.25	British	Blue Star Line	450 0	58 0	26 9	New Westminster.	Hamburg, Germany	Frozen, general.	6,256	8,561	5,815
Sunbeam [4]	17	10.00	17	12.05	17	20.05	17	20.05	American	Sun Oil Co	429 3	59.2	26.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,354	7,709	5,562
Capt. Ed. P. Nones [18]	.....	.....	17	11.06	17	19.00	.....	.....	American	U. S. Army	.....	.....	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
Franklin K. Lane [1]	17	11.00	17	12.55	17	21.40	17	21.40	American	Huastcca Petroleum Co.	435.0	56.2	26.4	Los Angeles, Calif	Baltimore, Md	Gasoline	9,674	7,405	5,131
Ycomo [18]	.....	.....	17	.....	17	.....	.....	.....	American	Lyle De Grummond	.....	.....	.....	Balboa, C. Z.	Pedro Miguel, C. Z.	.....	.....	.....	.....
Visurgis	17	14.00	18	5.34	18	13.29	.....	.....	German	North German Lloyd	229.6	37 8	12.6	Pto. Armuelles, R. P	Cristobal, C. Z	Ballast	.....	1,406	854
Julia Luckenbach	17	18.05	18	5.28	18	12.20	18	12.20	American	Luckenbach Line	436.6	57.2	25 6	Portland, Oreg.	New Orleans, La.	Lumber, general.	6,274	8,543	6,402
Steel Trader	17	19.35	18	6.34	18	14.25	18	14.25	American	Isthmian S. S. Lines	424.2	56.2	25.9	Manila, P. I.	New York, N. Y.	Raw sugar	7,015	7,611	5,450
Sandpiper	.....	.....	18	5.47	18	15.35	.....	.....	American	U. S. Navy	.....	.....	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
Dramatist	17	22.10	18	7.31	18	17.15	18	22.55	British	T. & J. Harrison.	410 0	52 3	23 3	Vancouver, B. C.	Liverpool, England	General	6,893	6,202	4,154
Banan	17	22.05	18	7.38	18	15.40	19	00.35	Norwegian.	United Fruit Co	250.0	34.7	13 0	Puntarenas, C. R.	Port Limon, C. R.	General	381	1,680	937
Willanglo	18	9.07	18	10.06	18	18.35	18	18.35	American	Williams S. S. Line	409 5	54 2	24.0	Aberdeen, Wash	Philadelphia, Pa.	Lumber	6,649	6,510	4,827
Probitas	18	9.20	18	11.26	18	19 30	19	7.10	Italian	Soc. Anon. Lig. Arma't.	385 7	49 0	25 2	San Francisco, Cal.	Grangemouth, Eng.	Lumber, wheat.	6,900	5,657	4,069
Surrey	18	6.15	18	11.57	18	20 00	18	20 00	British	Federal Steam Nav. Co.	460 4	62 8	22 0	Sydney, Australia.	London, England.	Frozen, general.	5,800	10.592	7,707
Ani	18	13.25	18	14.23	19	00 10	19	3.05	Belgian.	M. Gumuchdjian, Ltd.	400 5	52 1	28 6	Antofagasta, Chile.	Alexandria, Egypt	Nitrates	8,160	6,617	4,792
Ecuador	18	7 15	18	14 37	18	23.00	20	10 18	American	Panama Mail S. S. Co.	380.6	48 7	23 6	San Francisco, Cal.	New York, N. Y.	Coffee, general	2,720	5,926	4,178
Homer City	18	18 00	18	23.40	19	8 40	19	8.40	British	Sir W. R. Smith & Sons.	384 9	53 0	23.0	Vancouver, B. C.	Liverpool, England	Wheat	7,154	5,517	3,953
Floreana [19]	18	21 30	18	23.42	19	10 55	.....	.....	Colombian.	Colombian Transp. Co.	150 0	27.2	8 6	Buenaventura, Col.	Cristobal, C. Z	Coffee, hides	200	410	307
Curaca	18	18.45	18	23.50	19	9 50	19	14.25	Panaman	Grace Line	403.0	52.3	27.6	Tocopilla, Chile	New Orleans, La.	Nitrates	9,982	6,804	4,897
Somerset	18	17 00	19	1 28	19	9 40	19	9 40	British	Federal Steam Nav.Co	460 6	62 8	25 0	Auckland, N. Z.	London, England	Frozen, general.	6,821	10,650	7,993
Maltran	18	22.15	19	1.55	19	10.25	19	10 25	American	Mallory Line	333 8	48.0	23.0	Aberdeen, Wash.	New York, N. Y.	Lumber	4,900	4,171	2,827
American	18	23.50	19	2.31	19	11.15	19	12.30	American	Amer.-Hawaiian Line	404.6	53 9	27.0	Portland, Oreg.	Boston, Mass.	General	6,189	6,777	4,761
Ainderby	19	2.30	19	3.35	19	13.05	19	14.18	British	Sir. R. Ropner & Co.	390.0	55.0	23.0	Vancouver, B. C.	Hampton R'ds [21]	Wheat	7,620	.....	.....
K. I. Luckenbach	19	4.45	19	5 50	19	13.55	19	14 33	American	Luckenbach Line	446.0	56 1	28 8	Portland, Oreg.	Boston, Mass.	Lumber, general	8,212	8,552	6,236
Victolite [1] [19]	19	3.00	19	6.19	19	15.20	19	15.20	British	Imperial Oil Co., Ltd.	510 2	68 2	30 0	Talara, Peru	Halifax, N. S.	Crude oil	15,000	11,575	7,618
Virginian	18	10.42	19	7.45	19	16.10	19	17.00	American	Panama-Pacific Line	586.4	80.3	30 0	San Francisco, Cal.	New York, N. Y.	General	9,031	25,254	18,160
Wright	.....	.....	19	8 27	19	17 03	.....	.....	American	U. S. Navy	488.0	58.0	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
Steelmaker	19	4.50	19	10.28	19	18 25	19	18.25	American	Isthmian S. S. Lines	395 5	55 0	26 0	Seattle, Wash.	Baltimore, Md.	Lumber, general.	6,806	7,330	5,245
La Perla	19	11.00	19	11.48	19	19.45	.....	.....	American	United Fruit Co	325.2	48.1	19 8	San Francisco, Cal.	Port Limon, C. R.	General	779	4,033	2,261

[1] Tanker. [17] Motor yacht. [18] Launch. [19] Motor ship. [20] Sugar, coffee, and general. [21] For orders.

Clan Matheson	19	11.40	19	12.14	19	21.10	19	22.55	British	Cayzer Irvine & Co	397.1	57.4	26.8	Tocopilla, Chile	New Orleans, La.	Nitrates	7,650	6,085	4,179
Agwimex [1]	19	13.30	19	14.18	19	22.05	19	22.05	American	International S. S. Corp	480.5	66.0	29.6	Los Angeles, Calif	New York, N. Y.	Gas oil	13,000	9,394	6,306
Altune Mendi	19	14.00	19	14.57	20	00.05	20	1.30	Spanish	Sota & Aznar	400.5	53.4	27.0	Caleta Colosa, Chile	Azores [21]	Nitrates	8,830	6,282	4,547
Aconcagua	19	20.45	20	4.18	20	11.10	20	14.13	Chile	Chilean Line	422.8	56.5	26.0	Valparaiso, Chile	New York, N. Y.	General	4,868	7,764	4,705
Birk	19	14.10	20	5.10	20	13.25	20	15.15	Norwegian	Anglo-Chilean Ni'te Co.	359.8	52.1	24.4	Tocopilla, Chile	Pensacola, Fla.	Nitrates	7,000	4,751	3,160
Farnworth	19	15.25	20	6.07	20	14.35	20	16.29	British	R. S. Dalgliesh, Ltd.	401.6	53.2	23.0	Vancouver, B. C.	Esbjerg, Denmark	Wheat	7,040	5,580	3,688
S. C. T. Dodd [1]	20	00.30	20	7.06	20	16.40	20	16.40	American	Standard Oil Co. of Cal	425.0	57.2	27.8	Los Angeles, Calif	Baltimore, Md.	Gasoline	9,346	7,481	4,975
Urubamba	20	2.40	20	8.44	20	15.55	.....	.....	Peruvian	Peruvian Line	381.2	46.1	20.1	Callao, Peru	Cristobal, C. Z.	General	2,327	4,803	2,951
Marija Petri-novic	20	7.00	20	9.16	20	19.20	21	00.05	Yugoslav	Baburizza & Co	400.0	53.0	26.7	Tocopilla, Chile	Azores [21]	Nitrates	8,580	5,808	4,163
Wasgenwald	20	9.45	20	10.48	20	19.45	.....	.....	German	Hamburg-American Line	415.0	54.0	26.2	Valparaiso, Chile	Hamburg, Germany	([22])	7,811	6,536	4,516
Yorkmar	20	10.40	20	11.29	20	20.05	20	20.05	American	Calmar S. S. Corp	409.8	54.2	26.0	Aberdeen, Wash.	Boston, Mass.	Lumber	7,690	6,757	4,919
Welsh City	20	14.00	20	14.46	20	23 15	20	23 15	British	Sir. W. R. Smith & Sons	411.7	54.5	28.0	Vancouver, B. C.	Falmouth, England	Wheat	9,020	6,957	5,133
R. D. Leonard [1]	20	14.45	20	15.58	21	12.20	21	14.30	American	Atlantic Refining Co	265.9	39.2	19.6	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	3,000	1,936	1,304
Buenos Aires	20	14.25	21	5.18	21	13.20	22	10.35	Spanish	Spanish Line	407.0	47.9	22.0	Valparaiso, Chile	Barcelona, Spain	General	247	5,624	3,844
Huguenot [1]	20	20.20	21	7.18	21	15.35	21	16.00	American	B. L. Shipping Co	434.8	56.2	26.6	San Luis, Calif	Port Arthur, Texas	Crude oil	19,177	7,394	5,099
Hampton Roads [1]	21	1.40	21	8.00	21	16.55	21	18.10	American	Oil Transport Co	431.0	59.2	26.8	La Libertad, Ecud.	Philadelphia, Pa.	Crude oil	10,511	8,093	6,347
S–15 [23]	.....	.....	21	8.02	21	18.10	.....	.....	American	U. S. Navy	231.0	20.0	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
Salinas [1]	.....	.....	21	8.54	21	19 05	22	9.40	American	U. S. Navy	463.0	60.0	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
Ripple [17]	18	18.15	21	8.55	21	18.20	22	12.45	American	E. E. Bishop	123.5	23.9	9.6	Los Angeles, Calif	Tampa, Fla	.....	.....	294	130
S–14 [23]	.....	.....	21	9.54	21	19.50	.....	.....	American	U. S. Navy	231.0	20.0	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
S–16 [23]	.....	.....	21	9.54	21	19.50	.....	.....	American	U. S. Navy	231.0	20.0	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
S–17 [23]	.....	.....	21	9.54	21	19.50	.....	.....	American	U. S. Navy	231.0	20.0	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
Sunoil [2] [19]	21	5.30	21	11.48	21	20.30	21	20.30	American	Sun Oil Co	489.6	66.0	28.6	Los Angeles, Calif	Chester, Pa	Gasoline	13,670	9,610	6,393
O–6 [23]	.....	.....	21	10.05	21	19.50	.....	.....	American	U. S. Navy	175.0	16.4	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
O–9 [23]	.....	.....	21	10.05	21	19.50	.....	.....	American	U. S. Navy	175.0	16.4	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
O–10 [23]	.....	.....	21	10.05	21	19.50	.....	.....	American	U. S. Navy	175.0	16.4	.....	Balboa, C. Z	Cristobal, C. Z	.....	.....	.....	.....
Volunteer	20	16.25	21	13.32	21	21.49	21	21.49	American	American-Pioneer Line	410.0	56.0	29.5	Honolulu, T. H.	New Orleans, La.	([25])	10,036	8,214	6,183
Mahia	21	8.52	21	13.57	21	22.45	22	10.10	British	Shaw, Savill & Albion	477.0	63.0	24.6	Napier, N. Z.	London, England	General	5,000	11,109	7,984
Kelsomoor	21	14.05	21	15.00	21	23.15	21	23.15	British	W. Runciman & Co	331.2	47.7	20.6	Portland, Oreg	Falmouth, England	Wheat	4,670	3,551	2,551
W. H. Libby [1]	21	20.30	22	5.08	22	13.45	22	13.45	American	Standard Shipping Co	462.4	60.2	26.0	San Francisco, Cal.	New York, N. Y.	Gasoline	10,504	8,461	6,104
Cauca [19]	21	17.00	22	5.02	22	14.25	.....	.....	Colombian	National Navigation Co	107.4	22.9	11.3	Buenaventura, Col.	Cristobal, C. Z	Coffee, hides	296½	238	163
Larry Doheny [1]	22	4.15	22	6.43	22	15.10	22	15.10	American	Richfield Oil Co	430.0	59.2	26.4	Los Angeles, Calif	New York, N. Y.	Gasoline	10,500	7,494	5,198
Robert E. Hopkins [1]	22	5.10	22	7.40	22	16.20	22	16.20	American	Tidewater Oil Co	424.4	58.2	26.2	San Francisco, Cal.	New York, N. Y.	Gas oil	9,971	7,333	5,182
Point Reyes	22	7.00	22	8.10	22	18.10	22	18.00	American	Swayne & Hoyt	324.0	46.2	21.0	Portland, Oreg	New Orleans, La.	Lumber, general	3,649	4,984	2,617
Wido	22	6.45	22	9.16	22	18 25	23	00.50	German	Roland Line	393.0	54.2	24.6	Corral, Chile	Hamburg, Germany	General	7,794	6,585	4,631
Missourian [19]	22	10.00	22	11.42	22	19.55	22	19.55	American	Amer.-Hawaiian Line	443.0	59.8	27.5	Seattle, Wash	Boston, Mass	Lumber, general	9,664	8,567	6,020
Sirius	22	9.07	22	13.17	22	21.25	23	8.20	American	U. S. Navy	401.0	54.0	18.0	Bremerton, Wash.	Boston, Mass	General	2,566½	.....	.....
Ruapehu	22	12.30	22	13.39	22	22.45	23	4.55	British	N. Z. Shipping Co	457.3	58.2	21.0	N. Plymouth, N. Z.	London, England	Frozen, general	3,600	9,079	6,798
Port Denison	22	15.00	23	5.29	23	14.25	23	18.30	British	Com'lth & Dom. Line	480.4	60.3	25.9	Wellington, N. Z.	London, England	Frozen, general	7,536	.....	.....
Baralt	22	18.00	23	5.46	23	15.25	25	6.13	Dutch	Royal Neth. S. S. Co	202.9	33.1	13.3	Guayaquil, Ecuador	Cristobal, C. Z	General	887	1,183	742
Mundelta	22	23.30	23	7.10	23	15 20	23	15.20	American	Munson, McCor'k Line	370.0	53 2	25.6	Tacoma, Wash	Baltimore, Md.	Lumber, general	6,414	5,668	4,297
Tekoa	23	00.40	23	8.09	23	16.55	23	16 55	British	N. Z. Shipping Co	460.6	62.8	25.0	Napier, N. Z	London, England	Frozen, general	5,993	10,570	7,521
San Roberto [1]	23	8.20	23	10.15	23	20.00	23	22.55	British	Anglo-Mexican Pet. Co.	407.0	52.4	26.6	Los Angeles, Calif	United Kingdom	Gasoline	7,264	6,239	4,350
Zenon	23	12.10	23	13.45	23	22.10	24	18.45	French	French Line	425.0	55.0	26.8	Vancouver, B. C.	Le Havre, France	General	7,020	6,982	4,834
Doris [18]	22	17.40	23	.....	23	.....	.....	.....	Panaman	United Fruit Co	37.5	.....	.....	Balboa, C. Z	Gatun Lake, C. Z.	([26])	.....	.....	.....
No. 31021 [24]	22	17.40	23	.....	23	.....	.....	.....	Panaman	United Fruit Co	.....	.....	.....	Balboa, C. Z	Gatun Lake, C. Z.	([27])	.....	.....	.....
No. 31062 [24]	22	17.40	23	.....	23	.....	.....	.....	Panaman	United Fruit Co	.....	.....	.....	Balboa, C. Z	Gatun Lake, C. Z.	([27])	.....	.....	.....

[1] Tanker. [24] Nitrates, mineral, and borax. [23] Submarines. [24] Barges. [25] Sugar, coconut oil, and general. [26] Towing barges. [27] Towed by *Doris*.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
February 17...	No. 282 [28]	U. S. Navy	Mobile, Ala.
February 17...	Mayari	United Fruit Co	New York, N. Y.
February 17...	Cartago	United Fruit Co	New Orleans via Habana.
February 19...	No. 8044 [29]	Pan-American Airways	Miami via wayports.
February 19...	Van Renselaer	Royal Netherlands S. S. Co	Hamburg via wayports.
February 20...	Iriona	United Fruit Co	New Orleans, La.
February 20...	Granada	Standard Fruit & S. S. Co	New Orleans via Puerto Cabezas.
February 20...	Davanger	Anglo-Saxon Petroleum Co	Curacao, D. W. I.
February 20...	Santa Marta	United Fruit Co	New York via Kingston.
February 20...	No. 232 [28]	U. S. Navy	Norfolk, Va.
February 20...	No. 242 [28]	U. S. Navy	Norfolk, Va.
February 20...	No. 295 [28]	U. S. Navy	Norfolk, Va.
February 20...	Orinoco	Hamburg-American Line	Hamburg via wayports.
February 20...	Pellerin de La Touche	French Line	Havre via wayports.
February 20...	Lochgoil	Royal Mail S. P. Co	High seas for repairs.
February 21...	Zacapa	United Fruit Co	Colombian ports.
February 21...	Toloa	United Fruit Co	New York via wayports.
February 21...	Inapaquina [30]	United Fruit Co	Colon, R. P.
February 22...	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
February 22...	Suriname	United Fruit Co	Bocas del Toro, R. P.
February 22...	Ripple [31]	E. E. Bishop	High seas.
February 23...	Parismina	United Fruit Co	New Orleans via Habana.

* DEPARTURES.

Date.	Vessel.	Line.	For—
February 17..	Cristobal	Panama Railroad S. S. Line	New York via Haiti.
February 17..	Mandeville	United Fruit Co	Tela, Honduras.
February 17 .	Kungsholm	Swedish-American Line	New York via wayports.
February 18..	Mayari	United Fruit Co	Puerto Colombia.
February 18..	Cartago	United Fruit Co	New Orleans via wayports.
February 18..	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
February 21..	Inapaquina [30]	United Fruit Co	Colon, R. P.
February 21..	Iriona	United Fruit Co	Pto. Colombia via Bocas.
February 21..	Zacapa	United Fruit Co	New York via wayports.
February 21..	Santa Marta	United Fruit Co	New York via wayports.
February 22..	Pellerin de la Touche.	French Line	Havre via wayports.
February 22..	Lizzie D. Peabody [32]	M. P. Martinez	Colon, R. P.
February 22..	Granada	Standard Fruit & S. S. Co	New Orleans via Puerto Cabezas.
February 22..	Toloa	United Fruit Co	New York via wayports.
February 22 ..	Suriname	United Fruit Co	New Orleans, La.
February 22 ..	Delilian	Leyland Line	Curacao via Cartagena.
February 23..	No. 8044 [29]	Pan-American Airways	Miami via wayports.
February 23..	Orinoco	Hamburg-American Line	Cartagena, Colombia.
February 23..	Ripple [31]	E. E. Bishop	Key West via Habana.
February 23..	Van Renselaer	Royal Netherlands S. S. Co	Curacao, D. W. I. and wayports.

[28] Destroyer. [29] Airplane mail carrier. [30] Motor boat. [31] Yacht. [32] Motor schooner.

PORT OF BALBOA.

February 22...	A. B. de Obarrio [33]	A. Valdez	Bayano River, R. P.
February 22...	Dos Hermanos [33]	A. Valdez	Bayano River, R. P.
February 22...	El Colon [33]	Hans Elliot	Darien, R. P.
February 23...	Ideal [33]	Haus Elliot	Sambu River, R. P.
February 22..	Dos Hermanos [33]	A. Valdez	Panama Bay, R. P.
February 22	El Colon [33]	Hans Elliot	Panama Bay, R. P.
February 23	A. B. de Obarrio [33]	A. Valdez	Panama Bay, R. P.
February 23..	Ideal [33]	Hans Elliot	Panama Bay, R. P.

[33] Motor schooner.

* Other than ships passing through the Canal.

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2	$8.00	$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds	11.00	14.00

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season. Average temperature. Degrees F.
	Average.	Maximum.	Minimum.	
Cristobal (between docks 8 and 9)	1018	1020	1013	84.0
Balboa (dock 18)	1011	1021	1005	83.0

(NOTE—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., March 6, 1929. No. 31.

Traffic Through the Panama Canal in February, 1929.

During the month of February, 1929, 522 commercial vessels and 23 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,211,961.20, and on the launches $194.88, or a total tolls collection of $2,212,156.08.

The daily average number of commercial transits for the month was 18.64, and the average tolls collection $78,998.62, as compared with an average of 19.45 transits and $80,735.97 in tolls for the previous month. The average amount of tolls paid by each of the commercial transits was $4,237.47, as compared with $4,150.61 for the month of January, 1928.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 8 months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 8 months of the fiscal years 1928 and 1927:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January	603	2,502,815.12	19.45	80,735.97
February	522	2,211,961.20	18.64	78,998.62
Totals, first 8 months of fiscal year 1928	4,310	18,078,071.55	17.74	74,395.35
Totals, first 8 months of fiscal year 1927	4,394	18,398,340.46	18.01	75,403.03
Totals, first 8 months of fiscal year 1926	3,589	15,909,261.29	14.76	65,470.21

In comparison with the first 8 months of the fiscal year 1928, the corresponding period this year has had 84 fewer commercial transits and $320,268.85 less tolls, a decrease of 1.2 per cent.

New Vessels for Hamburg-American Line.

The Hamburg-American Line announces that in addition to its present service between the north Pacific and Europe, afforded by the motor ships *Los Angeles*, *San Francisco*, *Portland*, and *Seattle*, the motor ship *Oakland* is expected to be ready in August of this year, and two more motor ships with passenger accommodations and refrigeration have been ordered and are to be ready early next year. These additional vessels are to be of the same type as the motor ships now engaged in the European-north Pacific service of the Hamburg-American Line, and will probably be named *Tacoma* and *Vancouver*.

With the addition of these three new vessels to the service, the company will render regular fortnightly sailings with refrigeration.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 2, 1929.

THROUGH THE CANAL.—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Virgilio [2]	22	6.25	24	6.00	24	13.53	24	21.16	Italian	Nav. Gen. Italiana	484.0	55.0	25.11	Genoa, Italy	Valparaiso, Chile	General	2,133	12,941	9,329
Bridge [3]	23	6.00	24	6.08	24	17.35			American	U. S. Navy	400.0	55.2	25.11	Hampton Rds., Va.	Balboa, C. Z.	Naval supplies	1,600		
Steelore	22	15.55	24	7.25	24	18.45	24	19.46	American	Ore S. S. Corp	550.3	72.2	20.5	Baltimore, Md	Cruz Grande, Chile	Ballast		15,551	4,297
Iserlohn	23	6.55	24	7.15	24	17.26	24	18.38	German	Hamburg-American Line	338.7	47.4	20.0	Hamburg, Germany	San Jose de Guat.	General	3,110	4,395	2,731
Suscolanco	24	2.20	24	7.55	24	20.04	24	21.43	American	Transmarine Lines	324.0	46.0	20.9	New York, N.Y.	San Francisco, Cal.	General	4,292	3,984	2,612
Asia [2]	23	13.05	24	8.40	24	20.07	25	20.35	Danish	East Asiatic Co	420.1	55.1	23.7	Copenhagen, Den.	Vancouver, B. C.	General	6,204	7,396	5,588
Pomona	23	19.45	24	9.05	24	21.12	24	22.29	American	Argonaut S. S. Co	440.0	56.0	28.6	Baltimore, Md	Tacoma, Wash	Steel, general	10,539	8,324	6,036
Salina [1]	24	00.20	24	11.10	24	22.09	24	23.30	American	Gladstone Trans. Co	425.0	57.0	22.0	Philadelphia, Pa	Los Angeles, Calif.	Ballast		7,484	5,210
Havel [2]	23	20.00	24	12.20	24	23.24	25	00.46	German	North German Lloyd	474.0	61.0	20.9	Bremen, Germany	Vancouver, B. C.	General	3,645	9,305	6,790
Algonquin [1]	24	1.20	24	13.55	25	00.26	25	1.50	American	Standard Trans. Co	435.0	56.0	25.6	Beaumont, Texas	Los Angeles, Calif.	Batching oil	8,397	7,602	5,337
La Perla	24	2.40	24	15.58	25	1.45	25	7.26	American	United Fruit Co	325.2	48.1	19 9	Port Limon, C. R.	San Francisco, Cal.	General, bananas	570	4,033	2,261
Steelage	24	5.30	24	16.00	25	1.50	25	3.30	American	Isthmian S. S. Lines	395.6	55.0	27.5	Baltimore, Md	Shanghai, China	Steel, general	8,440	7,330	5,245
Nevadan	24	3.35	24	17.30	25	2.58	25	4.30	American	American Hawaiian Line	460.0	57.8	21.0	Boston, Mass	Portland, Oreg	General	3,575	6,829	4,627
Garfield	24	8.20	24	18.10	25	3.01	25	4.30	American	N. O. & S. A. S. S. Co	299.4	45.0	22.0	New Orleans, La	Talcahuano, Chile	General	2,904	3,256	2,010
Tashmoo	24	14.03	24	18.13	25	4.25	25	5.35	American	Charles Nelson & Co	324.0	46.2	21.0	Charleston, S. C.	San Francisco, Cal.	General	3,925	3,984	2,628
Pacific Hemlock	24	9.20	24	19.55	25	4.20	25	5.35	American	Dimon S. S. Corp	409.7	54.2	23.0	New York, N. Y.	Tacoma, Wash	General	6,040	6,630	4,916
Bullaren [2]	24	11.45	24	20.45	25	5.23	25	15.00	Swedish	Transatlantic S. S. Co	436.8	56.2	15.6	Bremen, Germany	Los Angeles, Calif.	Ballast		7,614	5,384
Baralt	23	15.25	25	6.13	25	14.11	25	15.15	Dutch	Royal Neth. S. S. Co	202.0	33.1	12.0	Cristobal, C. Z.	Buenaventura, Col.	General	82	1,183	742
Virginia [1]	24	12.25	25	6.19	25	14.07	25	15.15	American	Texas S. S. Co	416.0	56.0	21.0	Pt. Arthur, Texas	Los Angeles, Calif.	Ballast		6,816	4,945
Cubore [2]	25	1.20	25	6.40	25	15.38	25	18.43	American	Calmar S. S. Corp	450.7	57.0	28.0	Baltimore, Md	Seattle, Wash	Steel, general	11,319	7,956	4,866
Robin Adair	25	5.28	25	7.45	25	17.23	25	22.00	American	Isthmian S. S. Lines	424.8	55.2	27.2	New York, N. Y.	Vancouver, B. C.	Steel, general	8,931	7,470	5,529
Limerick [2]	25	5.40	25	7.55	25	18.13	26	18.40	British	N. Z. Shipping Co	460.5	62.0	25.0	Liverpool, Eng	Brisbane, Australia	General	6,035	10,921	7,559
David McKelvy [1]	25	8.00	25	9.18	25	19.15	25	20.30	American	Tidewater Oil Co	430.0	59.0	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,629	5,325
Cerigo	14	22.25	25	10.10	25	20.32	25	22.00	German	Hamburg-American Line	227.0	34.0	14.3	Cristobal, C. Z.	Buenaventura, Col.	General	552	1,572	1,011
Tampa [2]	25	6.25	25	10.20	25	20.25	25	22.00	Norwegian	Barber S. S. Line	357.6	51'2	21.5	New York, N. Y.	Shanghai, China	General	3,952	5,170	3,542
Mariston	25	13.10	25	19.40	26	3.51	26	4.50	British	N. Z. Shipping Co	385.0	52.0	24.10	Antwerp, Belgium	New Plym'th, N. Z.	Basic slag	6,674	5,122	3,651
Finn [2]	25	16.38	25	19.45	26	3.48	26	4.50	Swedish	Colombian Mar. Co	271.0	41.0	12.6	New York, N. Y.	Buenaventura, Col.	General	548	2,472	1,513
No. 31072 [4]			25		25	19.56			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	Unknown		15	15
No. 31073 [4]			25		25	19.56			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	Unknown		15	15
No. 31074 [4]			25		25	19.56			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	Unknown		15	15
Andy [5]			25		25	19.56			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	Towing barges		2	2
Mandalay	25	16.12	26	6.15	26	17.40	26	18.43	British	Com'lth & Dom. Line	425.0	54.0	19.6	New York, N. Y.	Fremantle, Aust'lia.	General	2,641	6,126	4,495
Errington Court	26	5.20	26	7.30	26	19.14	26	20.30	British	Haldin & Co	396.6	53.0	23.6	Barry, England	Honolulu, T. H.	Coal	5,345	5,563	3,814
Denver [6]	24	11.15	26	9.55	26	19.20			American	U. S. Navy	292.0	44.0		Habana, Cuba	Balboa, C. Z.				
Cauca [2]	22	14.25	26	10.03	26	20.34	27	1.20	Colombian	National Navigation Co.	107.0	22.0	9.2	Cristobal, C. Z.	Buenaventura, Col.	General	352	238	163
Baron Inchcape	26	9.45	26	11.25	26	20.36	26	22.00	British	Texas Gulf Sulphur Co.	425.8	56.0	24.7	Galveston, Texas	Geelong, Australia	Sulphur	7,425	7,085	5,254

[1] Tankers. [2] Motor ship. [3] Supply ship. [4] Barges. [5] Launch. [6] Cruiser.

Santa Isabel	26	13 40	26	13 55	26	21 44	27	4 00	American	Isthmian S. S. Lines	251.0	43.6	23.10	Baltimore, Md	Ahukini, T. H.	[11]	2,904	2,823	1,740
Brazos [4]	26	20 05	27	6 00	27	14 23			American	U. S. Navy	455.0	56.0		High Seas	Balboa, C. Z.				
Glenbank [2]	27	22 35	27	7 50	27	15 19	27	19 18	British	Andrew Weir & Co.	420.4	53.9	24.0	Falmouth, Eng.	Los Angeles, Calif.	General	6,800		
Nyanza	27	7 45	27	9 15	27	18 38	27	19 36	British	Wessel, Duval & Co.	403.0	52.0	18.0	New York, N. Y.	Talcahuano, Chile	General	1,500	5,583	4,073
Atlantic Sun [1]	27	8 15	27	10 05	27	19 40	27	21 00	American	Sun Oil Co.	429.3	59.2	19.0	Tampa, Fla.	Los Angeles, Calif.	Ballast		7,568	5,283
Queen of Scots [7]	24	14 00	27	10 25	27				American	A. J. Drexel	175.2	28.4	12.3	Southampton, Eng.	Balboa, C. Z.	Ballast		654	303
Sciota [8]			27	10 30	27	23 02			American	U. S. Navy	149.3	30.0		Cristobal, C. Z.	Balboa, C. Z.				
Horace Luckenbach	27	14 15	27	14 50	27	23 10	28	3 10	American	Luckenbach Line	445.0	58.0	22.6	New York, N. Y.	Seattle, Wash.	General	5,260	8,699	6,363
Ciricito [5]			27		27	17 04			Panama	Escobal Agricultural Co				Cristobal, C. Z.	Gatun, C. Z.	Towing barges		8	8
Trinidad [5]			27		27	17 05			American	San Blas Develop. Co.				Cristobal, C. Z.	Gatun, C. Z.	Ballast		3	3
Urubamba	26	19 00	28	6 05	28	14 32	28	16 10	Peruvian	Peruvian Line	381.2	46.1	19.0	Covenas, Col.	Callao, Peru	Cattle, general	515	4,803	2,951
Winterhude [9]	27	16 50	28	5 45	28	16 05	28	18 10	Finnish	Com. Administradora	285.0	40.0	14.0	Antwerp, Belgium	Ilo, Peru	Ballast		2,033	1,835
West Lynn [3]	27	23 25	28	7 35	28	16 15	28	19 36	British	Reardon Smith Line	401.0	54.0	14.0	Glasgow-England	Vancouver, B. C.	Ballast		6,752	5,161
Canadian Seigneur	28	9 30	28	9 35	28	19 45	28	21 25	British	Can. Nat. Steamships	409.6	52.0	22.0	Halifax, N. S.	Vancouver, B. C.	General	5,100	5,893	4,182
Susan Maersk	28	6 20	28	9 35	28	19 55	28	21 25	Danish	A. P. Moller	299.8	42.4	20.0	New York, N. Y.	Kobe, Japan	General	2,586	2,586	1,827
Portland [2]	27	2 55	28	12 52	28	20 54	28	22 00	German	Hamburg-American Line	462.0	61.0	24.7	Hamburg, Germany	Vancouver, B. C.	General, bananas	7,107	9,139	6,666
Athelprince [3]	28	13 30	28	15 45	3-3	2 31			British	Anglo-Saxon Pet. Co.	471.0	62.0	19.0	Baltimore, Md.	Los Angeles, Calif.	Ballast		9,359	6,287
Margarethe Cords	28	8 10	28	17 25	1	1 46	3-1	2 44	German	Columbian Mar. Co.	266.0	42.0	12.0	Rostock, Germany	Buenaventura, Col.	Ballast		2,263	1,622
Iowan	28	17 10	28	17 50	1	1 42	1	2 35	American	Amer.-Hawaiian Line	407.7	53.7	20.0	Boston, Mass.	Portland, Oreg.	General	4,338	7,079	5,028
Pacific Reliance [2]	27	11 35	3-1	6 10	1	13 57	1	15 00	British	Furness, Withy & Co.	451.0	60.0	19.3	Glasgow-England	Vancouver, B. C.	General, bananas	1,535	9,644	6,967
Essequibo	28	20 20	1	7 10	1	15 42	1	16 45	British	Pacific Steam Nav. Co.	450.0	58.0	25.6	New York, N. Y.	Talcahuano, Chile	General	4,256	9,158	6,176
New Britain	3-1	5 55	1	8 50	1	16 33	1	21 15	American	Black Diamond S. S. Co	386.8	52.2	19 0	New York, N. Y.	Seattle, Wash.	General, coal	4,107	5,684	4,082
Loriga [2]	2-28	6 30	1	10 30	1	19 09	2	1 54	British	Pacific Steam Nav. Co.	406.5	54.2	19.10	Hull, England	Valparaiso, Chile	General	4,353	7,331	5,091
Canadian Constructor	28	21 25	1	11 35	1	20 35	1	22 10	British	Can. Nat. Steamships	430.0	56.0	25.6	Halifax, N. S.	Adelaide, Australia	General	4,350	7,680	5,494
Andreas K	3-1	7 55	1	13 20	1	21 40	2	00 05	Greek	Margaronis Brothers	361.0	46.2	15.0	Algiers, Algeria	Arica, Chile	Ballast		4,367	3,161
Cambrai [10]	1	7 10	1	15 10	1	23 10			American	U. S. Army	436.0	56.0	23.6	Brooklyn, N. Y.	Balboa, C. Z.	General	551		
Titanian [2]	1	12 15	1	16 40	2	00 34	2	3 45	British	Maple Leaf Milling Co.	400.0	53.0	24.3	New York, N. Y.	Taku Bar, China	Flour	7,460	6,903	5,185
Sangro [1] [11]	2-19	17 45	2	6 05	2	19 36			Italian	Nav. Gen. Italiana	397.0	52.0	15.0	Curaco, D. W. I.	Balboa, C. Z.	Ballast			
Cavalla	27	7 10	2	6 07	2	19 20	2	20 53	German	North German Lloyd	260.0	37.0	17.3	Hamburg, Germany	San Juan del Sur	General	922	1,714	938
Port Curtis	3-1	19 30	2	7 25	2	21 07	2	22 15	British	Funch Edye & Co.	450.0	58.0	26.4	Halifax, N. S.	Dunedin, N. Z.	General	3,944	8,500	6,140
Cedarbank [2]	1	19 55	2	8 45	2	22 10	3	1 49	British	Andrew Weir & Co.	420.0	53.9	18.0	Baltimore, Md.	San Francisco, Cal.	Ballast		7,099	5,016
Arcturus	2	3 30	2	10 18	2	23 20	3	7 07	American	Roosevelt S. S. Co., S. B.	402.6	53.3	19.0	New York, N. Y.	Brisbane, Australia	General	2,847	7,043	5,167
Homeside	2	9 25	2	11 40	3	00 20	3	3 45	British	Dodwell Co.	384.0	52.3	15.8	Cardiff, England	San Francisco, Cal.	Ballast		5,127	3,718
Elder Branch	2	10 25	2	13 10	3	1 13	3	3 45	British	F. & W. Ritson	394.6	49.8	21.0	London, England	Coronel, Chile	General	2,922½	4,951	3,592

[4] Tanker. [7] Yacht. [8] Tug. [9] Barkentine. [10] U. S. Army Transport. [11] Balboa for dry-docking [12] Tinplate and ammonia.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Otterpool	23	14 20	24	5 04	24	13 55	24	16 05	British	Sir R. Ropner & Co.	390.0	55.0	24.3	Portland, Oreg.	Lisbon, Portugal	Wheat	7,711	5,926	4,262
Sudawsonco	23	16 20	24	5 10	24	16 45	24	16 45	American	Transmarine Lines	324.0	46.2	24.3	Portland, Oreg.	Port Newark, N. J.	Lumber	4,100	3,984	2,628
St. Mihiel [10]	22	21 00	24	6 15	24	15 05	24	15 05	American	U. S. Army	448.0	58.0	26.0	San Francisco, Cal.	New York, N. Y.	Army Supplies	222		
El Panquiaco [13]	24	5 50	24	6 20	24	16 40			Panaman	Panama Government	125.6	23.5		Panama Bay, R. P.	Cristobal, C. Z.				
Quebec City	24	7 00	24	7 52	24	18 10	24	18 10	British	Sir W. R. Smith & Sons	400.5	54.3	26.0	Vancouver, B. C.	Hull, England	Wheat	8,015	7,004	5,406

[13] Coast guard.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Salvador	24	9.30	24	10.44	24	19.35	..	....	British	Pacific Steam Nav. Co.	215.0	33.5	17.0	Champerio, Guat.	Cristobal, C. Z.	[20]	912	1,270	735
Rolling Stone [14]	..	....	24	10.35	..	....	..	....	Panaman	Robert Wilcox	51.0	15.0	....	Balboa, C. Z.	Cristobal, C. Z.	....	....	27	20
Wentworth	24	12.05	24	12.42	24	20.55	24	20.55	British	R. S. Dalglish & Co.	400.6	52.4	25.0	San Francisco, Cal.	Dublin, Ireland.	Barley	7,326	5,721	4,058
Antar	24	13.35	24	14.17	24	22.35	25	00.40	British	J. Langdon Rees	420.0	54.0	27.6	Vancouver, B. C.	Algiers, Algeria	Wheat	9,580	6,510	4,711
Maimoa	24	18.40	25	5.30	25	13.25	25	16.30	British	Shaw, Savill & Albion.	477.9	63.0	24.0	Dunedin, N. Z.	London, England.	General	5,717	11,053	7,895
Santa Barbara [15]	24	15.30	25	6.17	25	14.37	25	19.30	American	Grace Line	466.0	64.0	26.0	Talcahuano, Chile.	New York, N. Y.	General	5,533	10,687	6,633
Sciota [16]	..	....	25	6.59	25	14.40	..	....	American	U. S. Navy	155.0	30.0	....	Balboa, C. Z.	Cristobal, C. Z.	....	....	....	....
New Jersey	24	22.50	25	7.16	25	15.50	25	15.50	American	The Texas Co.	416.8	56.1	25.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	7,598	7,130	5,249
Bauta	25	6.55	25	8.07	25	17.45	25	21.15	Norwegian	Chr. Wilhelmsen.	270.1	38.1	15.0	Puntarenas, C. R.	London, England.	Coffee	1,483	1,906	1,189
Sutorpco	25	9.00	25	9.50	25	17.50	25	17.50	American	Transmarine Lines	324.0	46.2	23.4	Aberdeen, Wash.	Port Newark, N. J.	Lumber	3,800	3,984	2,612
Britte	25	13.15	25	14.05	25	21.55	26	10.55	Swedish	Cia Mar. Colombiana.	256.0	39.5	13.3	Buenaventura, Col.	New York, N. Y.	General	525	1,714	1,078
Hegira	25	14.30	26	4.18	26	12.10	26	12.10	American	Hegira S. S. Co.	440.0	56.0	28.0	Everett, Wash.	Port Newark, N. J.	Lumber	10,000	8,353	6,113
Feltore	25	17.00	26	5.31	26	14.30	26	14.30	American	Ore S. S. Corp.	449.1	57.2	30.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	11,800	7,808	5,139
Bretagne [15]	25	17.50	26	6.34	26	15.23	26	15.23	Danish	Danish French S. S. Co	316.8	48.7	21.0	Manila, P. I.	N. Atlantic Coast.	Sugar	5,300	....	....
Drakepool	26	2.00	26	6.55	26	16.18	26	17.00	British	Sir R. Ropner & Co.	390.0	55.0	23.5	Vancouver, B. C.	Hamburg, Germany	Wheat	7,710	5,889	4,198
Marore	26	5.30	26	8.22	26	18.30	26	18.30	American	Ore S. S. Corp.	550.3	72.2	32.8	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,161	15,551	4,297
Taormina	26	7.00	26	8.52	26	17.12	27	24.00	Italian	Nav. Gen. Italiana	482.0	58.3	24.6	San Antonio, Chile.	Genoa, Italy	General	2,418	9,760	6,236
Lillian Luckenbach.	26	3.15	26	10.06	26	18.45	26	18.45	American	Luckenbach Line	448.9	60.2	32.4	Portland, Oreg.	Boston, Mass.	Lumber, general.	9,000	9,274	6,865
Montanan	26	6.00	26	10.40	26	19.35	26	19.35	American	Amer-Hawaiian Line.	404.6	53.9	27.6	Portland, Oreg.	Boston, Mass.	General	7,677	6,756	4,775
Olilo [16]	25	18.10	26	10.42	26	18.45	..	....	American	Geo. G. Fisk	59.5	11.0	5.6	San Diego, Calif.	Cartagena, Col.	....	....	18	12
Rassina [17]	25	18.10	26	10.41	26	18.40	..	....	American	D. C. Roberts	60.2	13.7	6.0	San Diego, Calif.	Cartagena, Col.	....	....	45	12
Pacific Enterprise [15]	26	7.00	26	11.59	26	20.35	26	20.35	British	Furness, Withy & Co.	435.9	60.2	27.2	Vancouver, B. C.	Glasgow, Scotland	General	8,032	9,641	6,989
Antonis G. Lemos	26	7.35	26	13.33	26	22.55	26	22.55	Greek	S. & P. Lemos	385.0	53.0	24.6	Antofagasta, Chile	Azores [21]	Nitrates	7,775	5,805	3,984
Cabimas [1] [18]	16	18.02	26	13.35	26	22.15	26	22.15	Venezuelan	Venezuela Gulf Oil Co.	279.8	47.0	14.4	Balboa, C. Z.	Maracaibo, Venez.	Ballast	....	....	....
Flottbek	26	18.15	26	22.30	27	9.50	27	10.30	German	Knohr & Burchard	279.6	40.8	19.0	Guaymas, Mexico.	Rotterdam, Holl.	Rice	2,808	2,221	1,469
Pat [19]	..	....	26	8.25	26	....	..	....	American	C. P. Morgan	30.0	8.5	....	Balboa, C. Z.	Gatun Lake, C. Z.	Ballast	....	7	6
San Jose	26	23.05	27	00.48	27	9.23	..	....	American	United Fruit Co.	330.0	44.6	19.8	San Francisco, Cal.	Port Limon, C. R.	General	1,451	3,670	2,353
Paris City	26	19.15	27	4.38	27	12.40	27	15.00	British	Sir W. R. Smith & Sons	412.2	55.0	26.4	Vancouver, B. C.	Falmouth, Eng.	Wheat	9,020	6,673	4,763
Parthenia	26	20.50	27	5.33	27	14.00	27	14.50	British	Donaldson Bros, Ltd.	399.7	51.9	26.0	Vancouver, B. C.	Glasgow, Scotland	General	6,175	5,831	4,341
Remuera	26	11.50	27	6.40	27	14.45	27	14.45	British	N. Z. Shipping Co.	485.0	62.3	23.6	Wellington, N. Z.	London, England.	Frozen, general.	5,001	11,911	8,945
Francis E. Powell [4]	27	1.50	27	7.45	27	15.40	27	15.40	American	Altantic Refining Co.	431.0	59.2	27.4	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,595	7,860	5,101
Mimer	27	10.05	27	11.15	27	19.55	27	20.00	Norwegian	Thorvik & Gjerpen	228.8	35.2	14.8	Iquique, Chile	Jacksonville, Fla.	Nitrates	1,576	1,308	887
Pacific Spruce	27	12.50	27	13.41	27	23.25	27	23.25	American	Dimon S. S. Corp.	410.5	54.0	24.6	Seattle, Wash.	New York, N. Y.	Lumber	7,811	6,624	4,757
Eastern Knight	27	15.00	27	15.49	27	23.25	27	23.25	American	Arrow Line	415.0	55.7	28.2	Portland, Oreg.	New York, N. Y.	Lumber, copper	8,970	7,463	5,657

[4] Tanker. [14] Yacht. [15] Motor ship. [16] Tug. [17] Motor yacht. [18] Came south for dry-docking only. [19] Launch. [20] Coffee, hides, wood, and gold. [21] For orders.

Bolivia	27	20.45	27	22.35	28	9.05	28	28.40	Danish	Orient S. S. Co.	387.2	54.3	27.0	Vancouver, B. C.	Copenhagen, Den.	General	9,550	7,133	5,263
Willkeno	27	12.05	28	5.10	28	13.20	28	13.20	American	Williams S. S. Line	415.0	55.7	28.0	Bellingham, Wash.	New York, N. Y.	Lumber, general	9,385	7,750	5,805
Gen'l. Wm. M. Graham [22]	....	....	28	7.27	28	18.10	....	....	American	U. S. Army	160.2	32.0	....	Balboa, C. Z.	Cristobal, C. Z.	....	....	....	....
King Alfred	28	9.15	28	10.10	28	18.20	28	19.30	British	Dodd-Thomson & Co.	400.0	52.4	24.6	Portland, Oreg.	Ireland	Wheat	7,312	5,730	4,061
Canadian Leader	28	12.20	28	14.59	28	22.30	3-1	1.20	British	Can. Nat. Steamships	400.3	52.4	16.3	Adelaide, Australia	Halifax, N. S.	General	1,358	5,891	4,114
Ballena	28	14.55	28	15.55	3-1	9.30	1	14.20	British	Pacific Steam Nav. Co.	400.0	52.3	25.0	Corral, Chile	Liverpool, England	General	7,266	5,816	4,113
Holystone	28	20.50	28	21.48	1	10.45	1	10.45	British	Common Brothers	397.4	54.0	25.0	Vancouver, B. C.	Avonmouth, Eng.	Grain	8,240	5,843	4,268
Osterland	28	21.10	28	22.00	1	12.05	1	12.55	Swedish	Axel Brostrom & Son	350.0	51.0	22.0	Vancouver, B. C.	Denmark	Wheat	5,899	4,716	3,359
Alkmaar	3 1	5.00	3-1	6.26	1	15.05	1	23.05	Dutch	Royal Neth. S. S. Co.	447.2	62.7	27 0	Valparaiso, Chile	Hamburg, Germany	Nitrates, general	10,518	9,505	6,604
Adolf Von Baeyer [5]	1	7.30	1	8.52	1	16.40	2	1.55	German	Hamburg-American Line	409.8	53.8	23.0	Corral, Chile	Hamburg, Germany	Nitrates, general	6,360	7,173	5,514
San Zotica [1]	1	10.10	1	10.54	1	17.41	1	20.05	British	Anglo-Mexican Pet. Co.	400.2	52.0	21.8	Valparaiso, Chile	Curacao, D. W. I.	Ballast		6,032	3,892
Cali	1	11.35	1	14.52	1	23.25	3	15.10	German	Roland Line	216.5	32.9	15.3	Guayaquil, Ecud'r.	Cristobal, C. Z.	[24]	294	1,105	698
Pennsylvanian	1	14.15	1	16.03	1	23.20	1	23.20	American	Amer.-Hawaiian Line	407.7	53.7	27.0	Tacoma, Wash.	Boston, Mass.	General	8,120	7,107	5,041
Santa Tecla	1	21.30	2	1.47	2	11.15	2	15.00	American	N. O. & S. A. S. S. Co.	298.6	40.0	23.6	Antofagasta, Chile	New Orleans, La.	Nitrates	3,507	2,832	1,803
Georgios	2	1.00	2	2.54	2	11.00	2	19.15	Greek	N. Livinos	360.3	51.9	24.0	Tocopilla, Chile	Europe	Nitrates	6,950	4,776	3,433
San Leonardo [1]	1	14 50	2	3.31	2	12.03	2	12.35	British	Anglo-Mexican Pet. Co.	401.7	54.2	25.7	Los Angeles, Calif.	England	Gasoline	7,250	5,962	3,650
C. O. Stillman [1] [15]	1	17.30	2	5 13	2	14 35	2	14.35	British	Inter. Petroleum Co.	584 7	75.0	33.3	Talara, Peru	New York, N. Y.	Crude oil	20,000	16,780	9,885
Chilore	1	20 30	2	6.29	2	16.25	2	16 25	American	Ore S. S. Corp.	549.6	72.2	34.6	Cruz Grande, Chile	Baltimore, Md.	Iron ore	20,000	14,538	9,348
Arkansas [23]	....	....	2	8.19	2	17.47	....	....	American	U. S. Navy	554.0	93 2	....	Balboa, C. Z.	Cristobal, C. Z.	....	....	....	....
Pennsylvania [23]	....	....	2	9.15	....	....	....	....	American	U. S. Navy	600.0	97.0	....	Balboa, C. Z.	Cristobal, C. Z.	....	....	....	....
Antares	....	....	2	11.09	2	19.15	2	19.15	American	U. S. Navy	390.0	54.0	....	Balboa, C. Z.	Cristobal, C. Z.	....	....	....	....
Vestal	....	....	2	12.05	2	20.40	2	20.42	American	U. S. Navy	450.0	60.0	....	Balboa, C. Z.	Cristobal, C. Z.	....	....	....	....
K. R. Kingsbury [1]	1	23.20	2	13.00	2	22 00	2	22 00	American	Standard Oil Co. of Cal.	440.0	58 0	29.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	10,000	9,033	5,938
El Lobo [1]	1	7.00	2	14.28	2	22.30	2	22 30	British	C. T. Bowring & Co.	385 2	51.0	23.6	La Libertad, Ecud.	Philadelphia, Pa.	Crude oil	6,170	4,851	3,326
Henry D. Whiton	1	18 50	2	15.18	3	8.45	3	8 45	American	Union Sulphur Co.	356.0	51.6	25.3	Westport, Oreg.	Poughkeepsie, N.Y.	Lumber	5,400	5,357	2,925
Jamaica	2	14.20	2	15 15	3	9 45	3	9.45	British	Pacific Steam Nav. Co.	220.3	34.0	13.5	Champerico, Guat.	Cristobal, C. Z.	Coffee, bullion	905	1,187	622

[1] Tanker. [22] Mine planter. [23] Battleship. [24] Cocoa, coffee, and ivory nuts.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
February 24	Veendam	Holland-American Line	New York via wayports.
February 24	No. 9717 [25]	Pan-American Airways	David, R. P.
February 25	El Panquiaco [26]	Panaman Government	Colon, R. P.
February 26	Mayan	Gulf-Caribbean S. S. Line	New Orleans via wayports.
February 26	Anachucuna [27]	United Fruit Co.	Colon, R. P.
February 26	Linda S. [28]	A. L. Surgeon	Colon, R. P.
February 27	Ancon	Panama Railroad S. S. Line	New York via Haiti.

* DEPARTURES.

Date.	Vessel.	Line.	For—
February 25	No. 282 [29]	U. S. Navy	High seas.
February 25	Parismina	United Fruit Co.	New Orleans via wayports.
February 25	Wanks	Standard Fruit & S. S. Co.	San Blas. R. P.
February 25	El Panquiaco [26]	Panaman Government	Colon, R. P.
February 25	Lochgoil [30]	Royal Mail Steam Packet Co.	Rotterdam via wayports.
February 26	Veendam	Holland-American Line	New York via wayports.
February 26	Mayan	Gulf-Caribbean S. S. Line	Houston via wayports.

[25] Airplane mail carrier. [26] Transport. [27] Motor boat. [28] Motor schooner, [29] Destroyer. [30] Motor ship

* Other than ships passing through the Canal.

(Continued on next page.)

MOVEMENTS OF OCEAN VESSELS.—Continued from page 437.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

Date.	Vessel.	Line.	From—
February 27	Carare	Elders & Fyffes Line	Avonmouth via wayports.
February 27	Duchess of Bedford	Canadian Pacific S. S. Co	New York via wayports.
February 27	Metapan	United Fruit Co	New York via Kingston.
February 27	Lochgoil [11]	Royal Mail Steam Packet Co	High seas for repairs.
February 27	Inapaquina [12]	United Fruit Co	Colon, R. P.
February 28	Anachucuna [12]	United Fruit Co	Colon, R. P.
February 28	Calamares	United Fruit Co	New York via wayports.
February 28	Coppename	United Fruit Co	New Orleans, La.
March 1	Iriona	United Fruit Co	Bocas, R. P.
March 1	Mayari	United Fruit Co	Puerto Colombia.
March 1	Atlantida	Standard Fruit & S. S. Co	New Orleans, La.
March 1	Inapaquina [12]	United Fruit Co	Colon, R. P.
March 1	Linda S. [13]	A. L. Surgeon	Colon, R. P.
March 2	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
March 2	William M. [14]	G. I. Bryan	Colon, R. P.
March 2	Atlantian	Leyland Line	Palo Alto, Cuba.
March 2	Heredia	United Fruit Co	New Orleans via Habana.

* DEPARTURES.

Date.	Vessel.	Line.	For—
February 26	Linda S. [13]	A. L. Surgeon	Concepcion, Veraguas.
February 27	Anachucuna [12]	United Fruit Co	Colon, R. P.
February 28	Inapaquina [12]	United Fruit Co	Colon, R. P.
February 28	Carare	Elders & Fyffes Line	Avonmouth via Kingston.
February 28	Metapan	United Fruit Co	New York via wayports.
February 28	Duchess of Bedford	Canadian Pacific S. S. Co	New York via wayports.
March 1	No. 9717 [15]	Pan-American Airways	Managua via David.
March 1	Iriona	United Fruit Co	New Orleans, La.
March 1	Linda S [13]	A. L. Surgeon	Bluefields via Bocas.
March 1	Calamares	United Fruit Co	New York via wayports.
March 1	Lochgoil	Royal Mail Steam Packet Co	Rotterdam via wayports.
March 1	Inapaquina [12]	United Fruit Co	Colon, R. P.
March 2	Coppename	United Fruit Co	Port Limon and Bocas
March 2	Atlantida	Standard Fruit & S. S. Co	New Orleans via wayports.
March 2	Anachucuna [12]	United Fruit Co	Colon, R. P.
March 2	William M. [14]	G. I. Bryan	Bluefields, Nicaragua.
March 2	Mayari	United Fruit Co	New York via Kingston.

[11] Motor ship. [12] Motor boat. [13] Motor schooner. [14] Schooner. [15] Airplane mail carrier.

PORT OF BALBOA.

Date.	Vessel.	Line.	From—
February 27	Ideal II [16]	Hans Elliot	Sambu River, R. P.
February 27	Dos Hermanos [16]	A. Valdez	Bayano River, R. P.
February 28	San Luis [16]	Chiriqui Land Co	Pto. Armuelles, R. P.
February 28	Big Bill [17]	A. J. Duken	Darien, R. P.
...	...	...	...

Date.	Vessel.	Line.	For—
February 27	Ideal II [16]	Hans Elliott	Panama Bay, R. P.
February 27	Dos Hermanos [16]	A. Valdez	Panama Bay, R. P.
February 28	Big Bill [17]	A. J. Duken	Panama Bay, R. P.
March 1	San Luis [16]	Chiriqui Land Co	Pto. Armuelles, R. P.
March 1	S. A. Perkins	James Griffith & Sons	San Francisco, Cal.

[16] Motor schooner. [17] Motor yacht. * Other than ships passing through the Canal.

Salt Water Draft of Vessels Transiting the Canal in 1928.

During the calendar year 1928, the average salt water draft of 3,317 commercial transits of the Panama Canal from the Atlantic to the Pacific was 20.3 feet. From the Pacific to the Atlantic, the average draft of 3,017 commercial transits was 24.3 feet. The average draft of the total commercial transits during the year, 6,334, was 22.2 feet.

In the following table is shown the salt water draft of vessels through the Canal during 1928, separated in 1-foot intervals and segregated by direction of transit with the averages for 1928, 1927, and 1926:

Draft.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.	Percentage of total.
Under 10 feet	78	49	127	2.005
10 to 11 feet	20	11	31	.489
11 to 12 feet	20	31	51	.805
12 to 13 feet	41	40	81	1.279
13 to 14 feet	91	55	146	2.305
14 to 15 feet	122	46	168	2.652
15 to 16 feet	147	35	182	2.873
16 to 17 feet	169	34	203	3.205
17 to 18 feet	192	40	232	3.663
18 to 19 feet	264	35	299	4.721
19 to 20 feet	345	45	390	6.157
20 to 21 feet	322	47	369	5.826
21 to 22 feet	265	68	333	5.257
22 to 23 feet	231	121	352	5.557
23 to 24 feet	214	244	458	7.230
24 to 25 feet	217	378	595	9.394
25 to 26 feet	191	402	593	9.362
26 to 27 feet	170	438	608	9.599
27 to 28 feet	113	349	462	7.294
28 to 29 feet	59	228	287	4.531
29 to 30 feet	31	152	183	2.889
30 to 31 feet	9	61	70	1.105
31 to 32 feet	3	21	24	.379
32 to 33 feet	3	12	15	.237
33 to 34 feet	.....	26	26	.410
34 to 35 feet	.....	39	39	.616
35 to 36 feet	.....	10	10	.158
Totals	3,317	3,017	6,334	100.000
Average, 1928	20.3	24.3	22.2	.....
Average, 1927	22.4	25.2	23.8	.....
Average, 1926	20.8	24.6	22.6	.....

The vessel of the greatest draft transiting the Canal in 1928 was the steamship *Chilore*, carrying iron ore from Chile to the United States, drawing 36.0 feet. From the Atlantic to the Pacific, the vessel of the greatest draft was the steamship *Corinthic*, carrying general cargo in the London-New Zealand trade, with a draft of 32.0 feet.

It will be noted that the average draft of vessels transiting the Canal from the Pacific to the Atlantic is greater than vessels passing through in the opposite direction. This is accounted for by the fact that the Pacific-to-Atlantic traffic is made up largely of vessels carrying capacity cargoes such as mineral oils, iron ore, wheat, nitrates, and other bulk products, while the Atlantic to Pacific traffic is composed largely of vessels carrying miscellaneous manufactured goods which either are essentially not so heavy or else do not permit the fullest use of the stowage space of the vessels. Also, by far the greater proportion of the transits in ballast are included in the Atlantic-to-Pacific traffic.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

Westfal, Larsen Line to Inaugurate New Direct Service Between Brazil and West Coast of North America.

Beginning with the sailing from San Francisco in August, 1929, the Westfal, Larsen Line is to route its vessels through the Panama Canal from the Pacific for Rio de Janeiro, Santos, and Buenos Aires. This line has operated in the trade between the east coast of South America and the west coast of North America during the past three years, with approximately monthly sailings through the Canal on the voyages to the Pacific, the outward voyages by way of the Strait of Magellan. The present fleet in the service of the Westfal, Larsen Line consists of three steamers, the *Hardanger*, *Leikanger*, and *Evanger*, and the motor ships *Hoyanger* and *Brandanger*. Three new motor ships are now being built for the service and it is expected that the first of these is to be ready to enter the trade in August of this year.

A brief description of the new vessels appeared in THE PANAMA CANAL RECORD of October 10, 1928.

Summary of Passenger Movement at the Canal During 1928.

During the calendar year 1928 the number of passengers disembarking at Canal Zone ports was 44,116, and the number of embarkations during the same period was 40,694. Approximately 56 per cent of the arrivals and 58 per cent of the departures were carried as first class, and the remainder either as second, third, or steerage.

The following tabulation shows by months, the number of passengers embarking and disembarking at Canal Zone ports during the calendar year 1928, segregated as between first class and "others," with comparative totals for the calendar years 1927 and 1926:

Month.	Disembarking.			Embarking.		
	First class.	Others.	Totals.	First class.	Others.	Totals.
January	2,128	1,013	3,141	1,710	1,088	2,798
February	2,239	1,155	3,394	1,790	969	2,759
March	1,991	1,975	3,966	1,973	1,488	3,461
April	1,944	1,681	3,625	1,968	1,283	3,251
May	1,945	1,418	3,363	2,194	1,383	3,577
June	1,789	1,213	3,002	2,348	2,050	4,398
July	2,277	1,365	3,642	2,110	1,414	3,524
August	2,044	1,508	3,552	2,069	1,196	3,265
September	2,247	2,141	4,388	2,206	1,237	3,443
October	2,073	1,222	3,295	1,531	1,356	2,887
November	2,178	2,008	4,186	1,764	1,000	2,764
December	2,550	2,012	4,562	2,105	2,462	4,567
Totals, 1928	25,405	18,711	44,116	23,768	16,926	40,694
Totals, 1927	24,601	17,047	41,648	22,918	16,459	39,377
Totals, 1926	22,076	17,186	39,262	20,747	16,702	37,449

As compared with 1927 the calendar year 1928 shows a 3.2 per cent increase in the total number of arrivals and an increase of 3.3 per cent in the total number of departures.

During the past 3 calendar years approximately 81 per cent of the passenger movement to and from the Canal has been through the port of Cristobal as may be seen from the following tabulation in which the totals are given for the years 1928, 1927, and 1926.

	Port of Cristobal.			Port of Balboa.		
	1928.	1927.	1926.	1928.	1927.	1926.
Passengers disembarking	32,535	34,656	32,652	11,581	6,992	6,610
Passengers embarking	30,342	32,883	32,134	10,352	6,494	5,315

A further segregation of the passenger movement shows that 33,661 incoming and 29,820 outgoing passengers were brought from and were destined to ports on the Atlantic, and 10,455 incoming and 10,874 outgoing passengers were bound from and destined to ports on the Pacific.

In addition to the figures shown above of passengers embarking and disembarking, there were 173,315 passengers brought to the Isthmus by vessels calling at Canal Zone ports during 1928. For the calendar year 1927 this number was 172,684. Most of these passengers came ashore for a period of from 24 to 48 hours, but as they departed on the same vessel on which they arrived, they are not taken up in the above tabulation. This group of 173,315 passengers is segregated as follows:

	Calendar Year.		
	1928.	1927.	1926.
Remaining aboard vessels transiting Canal	149,570	151,845	152,479
Remaining on board vessels entering port of Cristobal, but not transiting the Canal	19,598	16,728	15,814
Remaining on board vessels entering port of Balboa, but not transiting the Canal	4,147	4,111	2,601
Totals	173,315	172,684	170,894

Segregating those remaining on board vessels transiting the Canal according to direction of transit for the 3 calendar years we have the following:

	Calendar year.		
	1928.	1927.	1926.
En route from Atlantic to Pacific ports	86,399	97,866	97,038
En route from Pacific to Atlantic ports	63,171	53,979	55,441

The above represents the strictly passenger traffic passing through the Canal and to and from Canal Zone ports. To get the total number of arrivals and departures of individuals at the Canal Zone ports during the year, it would be necessary to add the crews of 6,334 vessels and 513 noncommercial vessels which transited the Canal during the year, as well as some 1,135 vessels calling at the ports of Cristobal and Balboa during the year without transiting the Canal. In the aggregate the combined crews would considerably outnumber the passengers, though owing to the fact that many of the vessels made a number of transits or calls at the terminal ports during the year there would be considerable duplication insofar as the number of individuals was concerned in any figures compiled relative to crews.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending March 2, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Somme	U. S. Government	February 22	February 23	66	31
St. Mihiel	U. S. Government	February 22	February 24	1,060	80
Albert Voegler	Hamburg-American Line	February 22	February 24	391	48
Asia	East Asiatic Co.	February 25	February 25	98	.....
Santa Tecla	N. O. & S. A. S. S. Co.	March 1	March 2	3	.....
Jamaica	Pacific Steam Navigation Co.	March 2	March 2	1	.....
S. A. Perkins	Jas. Griffiths & Sons	February 3	March 1	.....	5,775
Remuera	New Zealand Shipping Co.	February 26	February 27	29	.....

McCormick Steamship Line Adds Two Vessels to its West Coast North America-East Coast South America Fleet.

It is reported that the McCormick Steamship Company is to augment its service between the west coast of North America and the east coast of South America (Pacific–Argentine–Brazil Line) by the addition of two freight steamers recently purchased from the Shipping Board. The vessels acquired are the *West Ira*, 5,879 tons gross, 3,642 net, 8,759 tons deadweight, and the *West Ivis*, 5,866 tons gross, 3,634 net, 8,766 tons deadweight. The vessels, which were built in 1919 at Seattle, are fitted for oil fuel and have a speed of 11½ knots. It is understood that the two newly acquired vessels and the *West Notus* are being fitted to carry refrigerated cargo and with the *West Camargo*, already so fitted, will maintain a service with sailings every 6 weeks.

Transits of the Canal are made on northward voyages, the outward trips being made through the Straits of Magellan. The present fleet of the McCormick Steamship Line in this service consists of the *West Nilus*, *West Notus*, *West Camargo*, and the *West Mahwah*.

Notices to Mariners.

Gas and Whistling Buoy Established—Caribbean Sea—Central America—East Coast of Panama.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *February 27, 1929.*

No. 515.

On February 26, 1929, there was established a combination Gas and Whistling Buoy, in 156 feet of water, on the prolongation of the axis of the main entrance of the Panama Canal 6.2 miles from Cristobal Harbor, East Breakwater Light bearing 178° 15′, on the following position:

Latitude 9° 29′ 34″ north.
Longitude 79° 55′ 18″ west.

This buoy is surmounted by a pyramidal lattice-work steel structure 16½ feet high, supporting a 375 mm. lens lantern, under which is located an 18-inch whistle operated by the action of the sea.

Characteristics: Flashing white, 1 second light, 4 seconds dark.
Color of buoy: Black and white vertical stripes.
Visibility: Eight miles.

A first-class spar buoy, similar in color, has been placed near the Gas and Whistling Buoy as a marker.

H. BURGESS,
Governor.

Colombia—Puerto Colombia—Light Established.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *February 28, 1929.*

No. 517.

The following is quoted from Hydrographic Office Notice to Mariners, No. 7, of February 16, 1929:

The Master of the German steamer *Teutonia* reports that a fixed red light, visible 10 miles, is exhibited from a mast located at the head of the pier at Puerto Colombia. Approximate position: 11° 00′ N., 74° 59′ W.

H. BURGESS,
Governor.

Colombia—Buenaventura Harbor—Wreck.

THE PANAMA CANAL EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *March 4, 1929.*

No. 519.

The following cablegram was received by the Captain of the Port, Cristobal, C. Z. from the Captain of the Port, Buenaventura, Colombia, under date of March 2, 1929:

The wreck of the steamship *Tritonia* is sunk in the channel in front of the town of Buenaventura showing about 4 feet above high water. Wreck will be marked with buoys at early date. All ships prohibited from entering port without pilot until further notice.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending March 2, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged.	Laded.
				Tons.	*Tons.*
Esparta	United Fruit Co	February 17	February 17	142	145
Cristobal	Panama Railroad S. S. Line		February 17		759
San Pablo	United Fruit Co		February 17		213½
Mandeville	United Fruit Co		February 17		89
Takaoka Maru	Nippon Yusen Kaisha	February 17	February 17	283	(2)
El Salvador	Panama Mail S. S. Co	February 17	February 18	359	386
Mayari	United Fruit Co	February 17	February 18	892	199
Cartago	United Fruit Co	February 17	February 18	1,340	10
Cid	Pacific Steam Navigation Co	February 17	February 19	30	55
Wanks	Standard Fruit & S. S. Co		February 18		11
Gaasterdijk	Holland-American Line	February 18	February 19	541	(2)
Banan	United Fruit Co	February 18	February 19	136	(2)
Ecuador	Panama Mail S. S. Co	February 18	February 20	1,589	268
Honduras	French Line	February 18	February 21	318	712
Visurgis	North German Lloyd	February 18	February 22	(1)	2,133
Curaca	Grace Line	February 19	February 19	46	(2)
La Perla	United Fruit Co	February 19	February 21	888	148
Illinois	French Line	February 19	February 20	621	268
Aachen	North German Lloyd	February 19	February 20	76	(3)
Perene	Peruvian Line	February 19	February 21	157	155
Floreana	Colombian Transport Co	February 19	February 23	190½	542
Van Rensselaer	Royal Netherlands S. S. Co	February 19	February 23	24	811
Aconcagua	Chilean Line	February 20	February 20	29½	(2)
Wasgenwald	Hamburg-American Line	February 20	February 21	(1)	244
Iriona	United Fruit Co	February 20	February 21	661	64
Santa Marta	United Fruit Co	February 20	February 21	870	274
Pellerin de La Touche	French Line	February 20	February 22	334	556
Davanger	Anglo-Saxon Petroleum Co	February 20	February 22	9,600	(2)
Granada	Standard Fruit & S. S. Co	February 20	February 22	506	464
Orinoco	Hamburg-American Line	February 20	February 22	158	921
Urubamba	Peruvian Line	February 20		2,327	(2)
Zacapa	United Fruit Co	February 21	February 21	29	206
Santa Maria	Grace Line	February 21	February 21	1	1
Toloa	United Fruit Co	February 21	February 22	1,200	234
Andromede	French Line	February 21	February 22	(2)	56
Buenos Aires	Spanish Line	February 21	February 22	48	157½
Lochkatrine	Pacific Steam Navigation Co	February 21	February 22	11½	315
Orbita	Pacific Steam Navigation Co	February 21	February 22	69	96
Albert Voegler	Hamburg-American Line	February 21	February 22	215	351
Planter	T. & J. Harrison	February 21	February 23	836	(2)
Uribe	Estrada G. Hermanos		February 22		735
Acajutla	Pacific Steam Navigation Co		February 22		1,113
Delilian	Leyland Line		February 22		636
Suriname	United Fruit Co	February 22	February 22	82	234
Alaska	French Line	February 22	February 23	11	5
Wanks	Standard Fruit & S. S. Co	February 22		55	
Cauca	National Navigation Co	February 22		296	
Wido	North German Lloyd	February 22	February 23	7	98
Havel	North German Lloyd	February 23		(4)	
Zenon	French Line	February 23		220	
Baralt	Royal Netherlands S. S. Co	February 23		885	
Asia	Danish East Asiatic Co	February 23		116	
Havel	North German Lloyd Line		February 24		106
Zenon	French S. S. Line		February 24		210
Iserlohn	Hamburg-American S. S. Line		February 24		239
La Perla	United Fruit Co	February 24	February 24	12½	53
Garfield	N. O. & S. A. S. S. Line	February 24	February 24	42	189
Parismina	United Fruit Co	February 24	February 25	916	377
Salvador	Pacific Steam Nav. Co	February 24		912	
Wanks	Standard Fruit & S. S. Co		February 25		8
Baralt	Royal Netherlands S. S. Line		February 25		82
Cerigo	Hamburg-American S. S. Line		February 25		551
Britte	Colombian Maritime Co	February 25	February 26	86	(2)
Linda S	R. Feuillebois		February 26		11½
Mayan	Gulf-Caribbean S. S. Line	February 26	February 26	87	30
Cauca	National Navigation Co		February 26		351
Taormina	Italian S. S. Line	February 26	February 27	43	1,060
Urubamba	Peruvian S. S. Line	February 26	February 27	(1)	424
Pacific Reliance	Furness, Withy & Co	February 26	March 1	8	315
Carare	Elder & Fyffes, Ltd	February 27	February 27	1	423
Portland	Hamburg American S. S. Line	February 27	February 28	7	450
Ancon	Panama Railroad S. S. Line	February 27		3,465	
San Jose	United Fruit Co	February 27	February 28	1,671	39
Metapan	United Fruit Co	February 27	February 28	857	350
Cavalla	North German Lloyd Line	February 27	March 1	76	361
Loriga	Pacific Steam Nav. Co	February 28	March 1	243	186
Essequibo	Pacific Steam Nav. Co	February 28	March 1	81	(2)
Coppename	United Fruit Co	February 28	March 1	1,174	435

(1) No cargo discharged. (2) No cargo laded. (3) 120 packages. (4) 27 packages.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z.—Continued.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Calamares	United Fruit Co	February 28	March 1	1,518	350
Adolf von Baeyer	Hamburg-American S. S. Line	March 1	March 2	89½	279
Linda S	R. Feuillebois	March 1	March 1	(1)	36¾
Iriona	United Fruit Co	March 1	March 1	1	326
Alkmaar	Royal Netherlands S. S. Line	March 1	March 1	144	7
Ballena	Pacific Steam Nav. Co	March 1	March 1	3	40
Cali	North German Lloyd Line	March 1		789	
Atlantida	Standard Fruit & S. S. Co	March 1	March 2	495	530
Mayari	United Fruit Co	March 1	March 2	98	1,124
Heredia	United Fruit Co	March 2		765	
Boskoop	Royal Netherlands S. S. Line	March 2		398	
Wanks	Standard Fruit & S. S. Co	March 2		65	
William M	R. Feuillebois	March 2	March 2	(2)	34

[1] No cargo discharged. [2] No cargo laded.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Official Circulars.

Appointment.

THE PANAMA CANAL, EXECUTIVE OFFICE
BALBOA HEIGHTS, C. Z., *March 4, 1929.*

To all concerned—Announcement is made of the appointment by the President on February 12, 1929, of Mr. James J. Lenihan as Judge of the District Court of the Canal Zone.

Judge Lenihan took oath of office on February 27, 1929.

H. BURGESS,
Governor.

Gorgas Hospital Schedule.

THE PANAMA CANAL, HEALTH DEPARTMENT.
GORGAS HOSPITAL, *February 23, 1929.*

To all concerned—The following changes in the weekly schedule of Gorgas Hospital, effective March 1, 1929, are hereby announced:

Ward Walks.....10 to 11 a. m. Tuesday
Clinic Journal Club.....11 to 12 a. m. Tuesday
Medical Examining Board.....8.30 a. m. Thursday

Kindly be governed accordingly.

G. M. EKWURZEL,
Superintendent.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 13 years of operation.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., March 13, 1929. No. 32.

Arrangements of Rig and Construction to Facilitate Night Navigation.

THE PANAMA CANAL, DEPARTMENT OF OPERATION AND MAINTENANCE,
BALBOA HEIGHTS, C. Z., *March 2, 1929.*

To all Steamship Agents.—Some ships transiting the Canal possess certain features in rig and construction which make navigating after dark in restricted channels difficult. It is believed that steamship companies, when informed, would gladly correct these minor conditions. With this in mind the following suggestions are made to the end that corrective action may be initiated:

Booms should not be topped close to the mast with gear rigged.

Ventilators on forecastle head, which obstruct a clear view, should be unshipped for the transit whenever possible to do so.

Crows nests on the foremast should be placed at a height which will not obstruct the clear view ahead from the pilot house windows.

Were steel stringers running between the Sampson post forward of the bridge—on ore ships and other cargo vessels—bolted instead of riveted, and removed just prior to transiting, the navigating of these ships in the Panama Canal after dark would be materially simplified.

The obstructions between Sampson posts on certain ships could be removed either by raising or lowering the cross-girders sufficiently to afford a clear view.

Forecastle awnings should be removed for night transits.

Bridge and pilot-house windows should be so fitted as to permit their being fully opened instead of, for example, being only half windows with double sash in the middle (horizontally) where only the upper half can be lowered.

It is requested that all steamship agents of vessels affected recommend to their owners or masters that the above-mentioned faults be corrected as soon as possible.

C. H. WOODWARD,
Marine Superintendent.

Notice to Mariners.

Panama—Panama Bay—Danaide Rocks—Shoals.

THE PANAMA CANAL, EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., *March 11, 1929.*

No. 520.

The following appears in Hydrographic Office Notice to Mariners No. 8 of February 23, 1929:

The following shoals exist in the vicinity of Danaide Rocks, Panama Bay—

(1) A shoal with a least depth of 11 feet at mean low water springs, on the bearings: Flamenco Island Lighthouse, 224° 30′, distant 5,175 yards. Signal Station, Sosa Hill, 283°; Point Paitillo, tangent, 320° 30′, distant 5,000 yards. Approximate position: 8° 56′ 21″ N., 79° 29′ 37″ W.

(2) A shoal with a least depth of 17 feet at mean low water springs, on the bearings: Flamenco Island Lighthouse, 229°, distant 5,010 yards. Signal station, Sosa Hill, 285° 30′; Point Paitillo tangent, 322°, distant 5,400 yards. Approximate position: 8° 56′ 09″ N., 79° 29′ 33″ W.

(3) A shoal with a least depth of 25 feet at mean low water springs, on the bearings: Flamenco Island Lighthouse, 234°, distant 5,140 yards. Signal station, Sosa Hill, 286° 30′; Point Paitillo, tangent, 321°, distant 5,900 yards. Approximate position: 8° 56′ 00″ N., 79° 29′ 21″ W.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 9, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Firmore	2	00.10	3	7.40	3	18 00	3	19.08	American	Ore S. S. Corp	449 0	57 2	20 0	Norfolk, Va.	Cruz Grande, Chile	Ballast		7,847	5,185
Sabotawan	2	22.10	3	9.05	3	20.43	3	22.30	American	Southern Lumber Co.	380 0	58 0	22 8	New Orleans, La.	San Francisco, Cal.	General	5,786	5,708	4,138
O-6 [2]			3	8.55	3	20.59			American	U. S. Navy	172 4	18 0		Cristobal, C. Z	Balboa, C. Z				
O-10 [2]			3	8.55	3	20.59			American	U. S. Navy	172 4	18 0		Cristobal, C. Z	Balboa, C. Z				
S-21 [2]			3	8.55	3	20.59			American	U. S. Navy	219 3	20 8		Cristobal, C. Z	Balboa, C. Z				
Point Arena	2	23.30	3	11.00	3	23.12	4	00.20	American	Gulf-Pacific Line	335 6	46 0	20 0	New Orleans, La.	Portland, Oreg	General	2,921	3,984	2,612
San Jose	3	6.15	3	10.55	3	21.58	3	23.47	American	United Fruit Co	349 0	44 6	18 3	Port Limon, C. R.	San Francisco, Cal.	Bananas	499	3,670	2,353
Boskoop	2	13.42	3	12.20	3	23.15	5	3.35	Dutch.	Royal Neth. S. S. Co	400 6	58 3	26 3	Hamburg, Germany	Corral, Chile	General	6,445	7,817	6,097
Chilcop	3	9.25	3	13.50	4	00.29	4	1.30	American	Chile S. S. Corp	411 5	54 0	22 9	New York, N. Y.	Chanaral, Chile	General	4,800	6,609	4,973
Salvador	2-24	19.35	3	14.55	4	00.30	4	5.05	British	Pacific Steam Nav. Co	215 0	33 5	16 9	Cristobal, C. Z	Champerico, Guat	General	1,072	1,270	735
Cali	3-1	23.25	3	15.10	4	2.05	3	3.10	German	North German Lloyd	216 5	32 9	14 4	Cristobal, C. Z	Buenaventura, Col.	General	550	1,105	698
Pacific Pine	3	12.20	3	16.00	4	2.00	4	3.10	American	Dimon S. S. Corp	410 5	54 3	22 0	New York, N. Y	Seattle, Wash	General	4,800	6,583	4,808
Motor Sailor No. 2			3		3	16.01			American	U. S. Navy				Cristobal, C. Z	Gatun, C. Z				
Fort Armstrong	3	14.35	4	6.56	4	19.00	4	20.05	American	Charles Nelson & Co	324 0	46 0	19 9	Charleston, S. C.	Los Angeles, Calif	General	3,633	3,984	2,628
Hoyanger [3]	3	21.40	4	7.25	4	19.08	4	20.05	Norwegian.	Westfal, Larsen Co.	381 0	53 6	17 6	Buenos Aires, Arg	Vancouver, B. C.	General	2,854	6,289	4,723
Stockton	4	5.10	4	8.50	4	20.10	4	22.50	American	Gladstone Transp. Co	425 8	57 0	25 0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,485	5,231
Rushpool	4	6.40	4	10.00	4	21.13	4	22.50	British	Simp'n, Spenc'r & Yo'g	429 0	54 0	15 6	Newcastle, Eng	Vancouver, B. C	Ballast		6,172	4,509
Storsten [1] [3]	4	9.25	4	11.25	4	22.20	4	23.53	Norwegian.	Tonsberg Rederi	388 1	52 7	19 0	Oslo, Norway	Los Angeles, Calif	Ballast		5,464	3,764
Irland [3]	4	12.50	4	14.05	4	22.25	5	2.47	Danish	Isbrandtsen & Moller	326 2	50 1	19 6	Baltimore, Md	Iloilo, P. I	General	3,848	3,820	2,791
Calliope [1] [3]	4	14.55	4	15.25	4	23.45	5	5.35	Danzig	Baltic-Amer. Pet. Co.	470 2	63 2	19 0	Hamburg, Germany	Talara, Peru	Ballast		9,001	5,927
Java Arrow [1]	4	16.57	4	18.05	5	19.36	5	20.59	American	General Petroleum Co.	467 0	62 6	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		10,084	7,388
Binta [1] [3]	4	17.55	5	9.15	5	20.57	6	00.55	Norwegian.	P. Osjerding	396 4	55 0	17 0	Falmouth, England	Los Angeles, Calif.	Ballast			
Chincha	5	2.40	5	10.50	5	21.53	6	00.13	American	Isthmian S. S. Lines	403 0	52 4	28 2	Baltimore, Md	Tacoma, Wash	General, steel	8,313	6,872	4,973
Tsuyama Maru	5	9.35	5	12.05	5	22.55	6	00.20	Japanese	Nippon Yusen Kaisha	445 0	58 0	21.0	Baltimore, Md	Kobe, Japan	Tinplate, cotton	5,815	7,956	5,681
Huntingdon	5	12.50	5	13.40	6	00.07	6	7.49	British	Federal Steam Nav. Co.	520 0	64 0	31.9	Swansea, England	Auckland, N. Z.	General	10,796	12,945	9,378
Oilfield [1]	5	13.00	5	16.00	6	1.30	6	5.31	British	Hunting & Son	365 2	51 3	20 0	Newcastle, England	Los Angeles, Calif.	Ballast			
Colombia	5	4.35	6	6.15	6	19.38	7	3.20	American	Panama Mail S. S. Co.	379.9	48 5	22.5	New York, N. Y.	San Francisco, Cal.	General	1,614	6,015	4,281
West Mahwah	5	21.55	6	7.28	6	21.57	6	23.52	American	Pac.-Arg.-Brazil Line.	410.5	54 0	19 8	Buenos Aires, Arg	San Francisco, Cal.	[4]		5,387	6,588	5,049
Hilda Knudsen [1] [3]	5	22.30	6	9.15	6	23.25	7	1.20	Norwegian.	Russian Oil Prod., Ltd	470 0	62.0	20 0	Avonmouth, Eng.	Los Angeles, Calif.	Ballast		9,474	6,489
Willfaro	6	7.12	6	10.10	7	00.34	7	2.20	American	Williams S. S. Line	386.8	52.0	23.6	New York, N. Y.	Tacoma, Wash	General, steel	6,553	5,684	4,070
Rangitiki [3]	5	15.38	6	11.00	6	21.16	7	9.10	British	N. Z. Shipping Co	552.0	70.0	31 6	London, England	Wellington, N. Z.	General	6,924		
Margaret Johnson [3]	5	18.05	6	12.45	7	1.30	7	7.50	Swedish	Johnson Line	405.0	54.0	22.2	Stockholm, Sweden.	Vancouver, B. C.	General		4,411	7,048	5,337
F. J. Luckenbach	6	12.10	6	14.10	7	2.33	7	3.55	American	Luckenbach Line	446.0	56.0	24.0	Boston, Mass	Seattle, Wash	General		5,561	8,508	6,179

[1] Tanker. [2] Submarine. [3] Motor ship. [4] Coffee, cocoa, bones, and tinned meats.

Paraguay	6	6.50	6	17.21	7	3.52	7	5.00	German	Hamburg-American Line	385.0	52.0	21.3	Hamburg, Germany	Valparaiso, Chile	General	3,816	5,279	4,034
Kentuckian	6	19.55	7	7.50	7	21.04	7	22.15	American	Amer.-Hawaiian Line	414.5	53.7	21.10	Boston, Mass	Seattle, Wash	General	3,418	7,049	4,941
Caldas [5]	3	18.50	7	7.40	7	19.38	7	21.00	Colombian	National Navigation Co.	116.0	21.1	10.6	Cristobal, C. Z	Buenaventura, Col.	General	253	211	124
Santa Elisa	6	23.15	7	9.35	7	19.38	7	21.35	American	Grace Line	360.3	51.7	24.3	New York, N. Y.	Valparaiso, Chile	General	2,020	5,957	4,325
Mojave [1]	7	8.10	7	10.30	7	22.00	8	3.55	American	General Petroleum Co.	435.0	56.2	21.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,434	5,098
Malayan Prince [5]	7	11.20	7	12.10	7	23.02	8	00.53	British	Prince Line, Ltd	441.0	60.0	24.6	New York, N. Y.	Manila, P. I.	General	6,481	9,209	6,245
Modavia [5]	6	8.00	7	13.40	8	00.16	8	1.43	British	Donaldson Bro., Ltd	385.0	54.0	17.5	Glasgow-England	Vancouver, B. C.	Bananas, general	971	6,719	4,979
King David	7	7.00	7	14.45	8	1.35	8	3.19	British	King Line, Ltd	355.0	50.0	24.3	Tampico, Mexico	Brisbane, Australia	Asphalt	4,701	4,597	3,163
Halerie	7	16.30	7	18.00	8	2.50	8	4.14	British	Andrew Weir & Co.	399.0	52.0	15.0	New York, N. Y.	Taltal, Chile	Ballast		6,161	4,611
Huascaran [6]	7	12.35	7	17.10	8	2.54	8	17.35	Peruvian	Manuel R. Aguirre	107.0	21.0	6.0	Brest, France	Callao, Peru	General	150	164	101
Trinidad [7]			7		7	20.41			American	San Blas Develop. Co.				Cristobal, C. Z	Gatun, C. Z	Ballast		3	3
Oroya	7	16.25	8	6.10	8	18.18	8	19.45	British	Pacific Steam Nav. Co.	525.3	62.8	25.2	Liverpool, Eng	Talcahuano, Chile	General	4,594½	13,137	9,067
Port Napier	7	6.30	8	6.25	8	21.54	8	23.10	British	Com'lth & Dom. Line	490.0	51.0	29.8	London, England	N. Plymouth, N. Z.	General	8,108	10,978	8,115
Virginia	8	6.10	8	7.30	8	19.22	9	5.56	American	Panama-Pacific Line	586.4	80.3	26.0	New York, N. Y.	San Francisco, Cal.	General	2,614		13,160
President Wilson	8	3.05	8	8.50	8	20.35	9	4.20	American	Dollar Line	516.0	72.2	29.6	New York, N. Y.	San Francisco, Cal.	General	2,418	15,286	10,533
La Marseillaise	6	16.35	8	11.25	8	22.44	8	23.58	French	French Line	442.0	58.0	18.10	Havre, France	Vancouver, B. C.	General	1,787	8,079	5,580
West Cape	7	17.05	8	12.25	8	23.55	9	1.43	American	Munson, McCor'k Line	409.5	54.2	24.0	New York, N. Y.	Tacoma, Wash	General	8,000	6,566	4,960
Padilla	3	22.40	8	14.37	9	00.01	9	1.43	Colombian	Colombian S. S. Co.	247.2	43.5	17.10	Pto. Colombia, Col.	Puntarenas, C. R.	General	2,700	2,206	1,506
Sucarseco	8	1.45	8	14.50	9	1.17	9	2.47	American	Transmarine Lines	324.0	46.2	24.0	Mobile, Ala	Seattle, Wash	General	4,987	3,984	2,628
Bohemian Club [1]	7	22.01	8	16.05	9	1.19	9	2.47	American	Atlantic Refining Co	425.0	57.2	23.0	Fall River, Mass.	Los Angeles, Calif.	Ballast		7,204	4,739
Buchanness	8	2.15	8	17.10	9	2.15	9	4.00	British	The Texas Co	402.0	54.0	24.9	Port Arthur, Tex.	Shanghai, China	Case oil	7,500	6,656	4,954
City of Roubaix	8	6.00	8	18.35	9	3.00	9	4.20	British	Norton, Lilly & Co.	455.0	58.5	22.3	New York, N. Y.	Dunedin, N. Z.	General	3,314	9,037	6,517
Eldena	8	7.20	8	19.45	9	4.04	9	5.39	American	Tampa Interocean Co.	409.0	54.0	25.6	Port Arthur, Tex.	Manila, P. I.	General	5,846	7,486	5,747
Orient	8	9.35	8	21.05	9	5.14	9	6.33	American	Oriental Navigation Co.	376.0	52.0	22.4	Wilmington, Del.	Seattle, Wash	General	5,571	5,455	3,879
Supportco	8	16.20	8	20.35	9	5.25	9	6.33	American	Transmarine Lines	324.0	46.2	18.0	Newark, N. J.	Los Angeles, Calif.	General	2,602	3,984	2,612
Atlantic [1] [5]	8	23.40	9	6.35	9	19.25	10	1.05	Norwegian	Anglo-Saxon Pet. Co.	441.0	57.0	21.0	Rotterdam, Holland	Los Angeles, Calif.	Ballast		7,589	5,312
Lochmonar [5]	8	13.00	9	7.15	9	20.34	9	22.10	British	Royal Mail S. P. Co.	485.6	62.0	22.0	Belfast, Ireland	Vancouver, B. C.	General	3,488		
Edgar F. Luckenbach	9	6.00	9	7.40	9	21.34	10	2.24	American	Luckenbach Line	425.0	57.0	26.6	New Orleans, La.	Seattle, Wash	General	6,882	8,568	6,648
Edda	9	7.25	9	9.15	9	22.27	10	00.25	Italian	Nav. Libera-Triestina	405.0	53.9	16.0	Trieste, Italy	Seattle, Wash	Ballast		6,206	4,421
Franklin K. Lane [1]	9	8.55	9	9.15	9	23.15	10	1.05	American	Huasteca Petroleum Co.	435.0	56.2	20.0	Norfolk, Va	Los Angeles, Calif.	Ballast		7,405	5,131
Hague Maru	9	11.07	9	11.40	10	00.28	10	2.04	Japanese	Osaka Shosen Kaisha	407.3	50.0	26.0	New York, N. Y.	Hong Kong, China	(10)	5,611	6,533	4,772
S. C. T. Dodd [1]	9	11.20	9	12.10	10	1.20	10	2.24	American	American Oil Co.	425.0	57.2	19.6	Baltimore, Md.	San Francisco, Cal.	Ballast		14,325	4,635
Robin Gray	9	8.35	9	13.12	10	2.37	10	3.35	American	Argonaut S. S. Co.	425.0	55.0	28.7	Baltimore, Md.	Tacoma, Wash	Steel, general	9,266	7,472	5,541
Oakbank [5]	9	13.10	9	15.45	10	3.38	10	7.58	British	Andrew Weir & Co.	420.3	53.9	25.0	Tampa, Fla	Shanghai, China	Phosphate, cotton	7,722	7,098	5,017
Peary [8]	8	14.40	9	16.00	10	00.20			American	M. F. Bramley	135.6	22.6	13.0	Boston, Mass	Los Angeles, Calif.	Ballast			
Uribe	4	14.55	9	17.25	10	1.26	10	9.56	Colombian	Estrada G. Hermanos	227.4	31.7	13.6	Cristobal, C. Z	Buenaventura, Col.	General	923	1,154	663
Lark [9]	7	23.35	9	6.20	9	19.30			American	U. S. Navy	180.0	35.6		Cristobal, C. Z	Balboa, C. Z	Towing barge			

[1] Tanker. [5] Motor ship. [6] Whaler. [7] Launch. [8] Yacht. [9] Mine sweeper. [10] Cotton, sugar, ammonia, phosphate, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Witram	2	15.45	3	1.32	3	10.45	3	22.39	German	North German Lloyd	449.0	58.2	25.0	Vancouver, B. C.	Antwerp, Belgium	General	78,00	7,820	5,661
Breda	2	20.15	3	2.26	3	11.55	3	22.05	Dutch	Royal Neth. S. S. Co.	402.6	53.8	27.0	Los Villos, Chile	Hamburg, Germany	General	8,429	7,384	4,769
Chile Maru	2	20.35	3	3.50	3	13.45	3	14.30	Japanese	Can.-Amer. Ship. Co	385.0	51.0	26.8	Vancouver, B. C.	Hamburg, Germany	Wheat	7,618	5,923	4,409
Singapore Maru	2	21.15	3	5.06	3	14.35	3	16.00	Japanese	Kokusai Kisen Kaisha.	385.0	51.0	25.6	Vancouver, B. C.	Greece	Wheat	7,607	5,914	4,426
Richmond [11]			3	6.29	3	15.45			American	U. S. Navy	550.0	55.0		Balboa, C. Z.	Cristobal, C. Z.				
Marblehead [11]			3	7.31	3	17.00			American	U. S. Navy	555.0	56.0		Balboa, C. Z.	Cristobal, C. Z.				
Itauri	3	2.45	3	8.34	3	18.55	4	00.40	German	Hamburg-American Line	438.8	55.6	24.0	Valparaiso, Chile	Hamburg, Germany	Nitrates, ore	8,221	7,004	5,017
Caldas [12]	1	5.40	3	8.48	3	18.50	7	7.50	Colombian	National Navigation Co.	116 0	21.1	9.6	Buenaventura, Col	Cristobal, C. Z.	General	265¼	211	124
Santa Cecelia	3	3.55	3	9.51	3	19.40	4	19.24	American	Grace Line	408.0	55.2	23.6	Chanaral, Chile	New York, N. Y.	Copper, nitrates	5,572	6,672	4,905
Clan MacKinlay	2	22.30	3	10.35	3	20.05	3	22.00	British	Caysar Irvine & Co	420.0	54.5	27.0	Cairns, Australia	London, England.	([16])	8,253	6,978	4,893
American Star	3	6.45	3	12.34	3	20.55	3	22.00	American	Charles Nelson & Co.	386.8	52.2	24.1	Port Angeles, Wash	Baltimore, Md	Lumber	6,071	5,699	4,167
Surailco	3	9.20	3	12.40	3	20.50	3	20.50	American	Transmarine Lines	324.0	46 2	24.2	Coos Bay, Oreg.	Newark, N. J.	Lumber	4,049	3,984	2,628
Solana [1]	3	9.15	3	13.30	3	21.30	3	21.30	American	Associated Oil Co	419.5	56.5	26 0	San Francisco, Cal.	New York, N. Y.	Gasoline	8,900	7,060	5,025
Golden Gate	3	9.45	3	15.00	3	23.00	3	23 00	Norwegian	Scand.-So. Pacific Co.	381.5	53.1	22.6	Corral, Chile	Oslo, Norway	General	6,454	5,616	3,879
Bradfyne	3	10.45	4	1.20	4	9.05	4	9.05	British	Leeds Shipping Co	400 2	54.2	25.6	Vancouver, B. C.	London, England	Wheat	8,030	6,961	5,365
Maricopa	3	14.00	4	2.10	4	10.10	4	10.10	Norwegian	Wilh. Wilhelmsen	425.5	57.0	25.2	Talara, Peru	Vallo, Norway	Crude oil	9,361	7,000	5,105
Cengio	3	11.00	4	3.28	4	11.30	4	13.20	Italian	Carodi & Carrado	440 0	51.6	26.0	Iquique, Chile	Azores [17]	Nitrates	8,251	6,287	4,529
Knockfierno	3	12.00	4	4.48	4	13.20	4	14.35	British	Andrew Weir & Co	400.0	52.3	25.0	Taltal, Chile	Mobile, Ala	Nitrates	7,820	5,828	4,095
Bridge [13]			4	5.51	4	13.40	4	13.40	American	U. S. Navy	400.0	55 0		Balboa, C. Z.	Cristobal, C. Z.				
Uribe	4	2.10	4	5.35	4	14.55			Colombian	Colombian Mar. Co.	227 4	31.7	11.0	Pto. Armuelles	Cristobal, C. Z.	Ballast		1,154	663
Florida [14]			4	6.56	4	16.00			American	U. S. Navy	510.0	88.0		Balboa, C. Z.	Cristobal, C. Z.				
Cincinnati [11]			4	8.35	4	16.15			American	U. S. Navy	555.6	54.7		Balboa, C. Z.	Cristobal, C. Z.				
Utah [14]			4	9.15	4	18.40			American	U. S. Navy	510.0	88.0		Balboa, C. Z.	Cristobal, C. Z.				
Cambrai [15]	1	23.10	4	11 02	4	19.35	6	11.15	American	U. S. Army	448 0	58.0	24.3	Balboa, C. Z.	New York, N. Y.				
Detroit [11]			4	13.04	4	20.50			American	U. S. Navy	550.0	55.0		Balboa, C. Z.	Cristobal, C. Z.				
Ebro	4	3.00	4	13.54	4	22.05	5	1.23	British	Pacific Steam Nav. Co.	450.0	57.8	24.6	Valparaiso, Chile	New York, N. Y.	General	4,168	9,291	6,301
Oran	3	12.20	4	14.51	4	23.25	4	23.15	American	Oriental Navigation Co.	410.5	54.2	25.6	San Francisco, Cal.	Philadelphia, Pa.	Lumber, general	6,960	6,755	4,887
Atlantic	3	15.05	4	22.27	5	8.45	5	8.45	American	Argonaut S. S. Co.	410.5	54.3	25.0	Everett, Wash.	Baltimore, Md.	Lumber	6,168	6,567	4,917
Canadian Transporter	3	15.15	4	23.30	5	9.20	5	9.20	British	Can. Nat. Steamships	400.0	52.4	14.0	Auckland, N. Z.	Halifax, N. S.	General	2,465	6,228	4,491
Balboa [12]	3	14.20	5	1.15	5	10.35	6	00.35	Swedish	Johnson Line	425.0	56.0	25.7	San Francisco, Cal.	Gothenburg, Swed	([18])	7,343	7,481	5,533
Kinderdijk	4	5.45	5	2.50	5	11.15	5	15.14	Dutch	Holland-American Line.	469.4	58.4	26.0	Vancouver, B. C.	Antwerp, Belgium	General	9,637	8,515	6,060
Bendoran	4	7.50	5	3.35	5	12.25	5	13.40	British	W. Thomson & Co.	378.0	46 0	22.4	San Francisco, Cal.	Leith, Scotland	Barley	5,344	4,232	3,096
Sommerstad [1 12]	3	15.55	5	5.05	5	13.15	5	13.15	Norwegian	Cities Service Corp	381.0	55.2	27.0	Los Angeles, Calif.	Hull, England	Gasoline	7,886	5,994	3,876
Venezuela	4	14.30	5	6.14	5	14.55	6	15.15	American	Panama Mail S. S. Co.	380.0	48.7	25.0	San Francisco, Cal.	New York, N. Y.	General	4,906	6,033	4,353
Arizona [14]			5	7.06	5	16.10			American	U. S. Navy	600.0	97.0		Balboa, C. Z.	Cristobal, C. Z.				
Brazos [1]			5	8.46	5	18.05	6	9.40	American	U. S. Navy	475.0	56.0	18.3	Balboa, C. Z.	Cristobal, C. Z.				
Dobbin			5	10.06	5	18.28			American	U. S. Navy	483.0	61.0		Balboa, C. Z.	Cristobal, C. Z.				

[1] Tanker [11] Light cruiser. [12] Motor ship. [13] Auxiliary store ship. [14] Battleship. [15] U. S. Army transport. [16] Sugar, ore, and copper. [17] For orders. [18] Wheat, fruit, and coffee.

Canadian Ranger	4	11.30	5	11.00	5	20.35	5	22.25	British	Can. Nat. Steamships	400.3	59.0	24.0	Nanoose Bay, B.C.	Halifax, N. S.	Lumber, general	6,000	5,879	4,121
No. 287 [19]			5	11.12	5	20.55			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 293 [19]			5	11.16	5	20.55			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
Manhattan Island	4	12.17	5	11.57	5	21.15	5	21.15	American	Redwood Line, Inc.	386.8	52.2	22.9	San Francisco, Cal.	Mobile, Ala.	Lumber, general	5,855	5,696	4,125
No. 199 [19]			5	12.15	5	20.55			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 249 [19]			5	12.15	5	20.55			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
Archangelos	4	12.30	5	13.09	5	22.55	5	22.55	Greek	Livanos Brothers	405.1	52.0	26.0	Antofagasta, Chile	Azores [43]	Nitrates	8,400	5,724	4,292
No. 250 [19]			5	13.46	5	23.35			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 233 [19]			5	13.46	5	23.35			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
Columbian	4	21.14	5	15.07	5	23.55	5	23.55	American	Amer.-Hawaiian Line	404.6	53.9	27.4	Los Angeles, Calif.	Boston, Mass.	General	6,933	6,760	4,450
No. 231 [19]			5	15.37	5	23.35			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 292 [19]			5	15.37	5	23.35			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
Walter A. Luckenbach	4	18.30	5	00.10	6	8.50	6	8.50	American	Luckenbach Line	446.5	56.1	29.0	Portland, Oreg.	Boston, Mass.	General	8,425	8,785	6,567
Coquina	4	18.30	6	00.26	6	10.25			American	Panama Mail S. S. Co.	250.5	43.7	17.4	San Francisco, Cal.	Cristobal, C. Z.	[24]	1,082	2,290	1,459
Limon	5	16.45	6	1.30	6	10.40			American	United Fruit Co.	330.6	44.5	19.6	San Francisco, Cal.	Port Limon, C. R.	General	1,019	3,675	2,234
Henry S. Grove	5	20.15	6	1.40	6	11.37	6	13.55	American	Argonaut S. S. Line	404.6	52.9	26.6	San Francisco, Cal.	Baltimore, Md.	Lumber, general	7,446	6,755	4,688
Marenta	5	22.40	6	2.10	6	13.20			British	Royal Mail S. P. Co.	450.2	58.3	24.5	Vancouver, B. C.	Rotterdam, Holland	General	5,543	8,856	6,559
Trojanstar	4	16.00	6	4.18	6	15.35	6	15.35	British	Blue Star Line	473.8	60.0	29.0	N. Westminster	Newcastle, England	[25]	7,200	10,405	7,401
Mongolia	5	13.20	6	6.16	6	14.35	6	15.05	American	Panama-Pacific Line	600.0	65.3	30.7	San Francisco, Cal.	New York, N. Y.	General	7,450	17,041	11,426
Wyoming [20]			6	7.14	6	16.50			American	U. S. Navy	554.0	93.3		Balboa, C. Z.	Cristobal, C. Z.				
Svealand [21]	5	10.45	6	9.02	6	18.40	6	18.40	Swedish	Axel Brostrom & Son	561.0	72.2	34.0	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,457	15,425	4,421
Concord [22]			6	10.14	6	18.05			American	U. S. Navy	550.0	55.0		Balboa, C. Z.	Cristobal, C. Z.				
Herman Falk [1]	4	17.20	6	11.15	6	19.30	6	19.30	American	Oil Transport Co.	431.0	59.2	26.3	Los Angeles, Calif.	New York, N. Y.	Gasoline	10,904	7,862	5,049
No. 237 [19]			6	11.27	6	20.45			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 239 [19]			6	11.27	6	20.45			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
Lycia [21]	4	22.45	6	12.51	6	22.40	7	6.50	British	Canadian Transp. Co.	300.5	44.2	20.2	Bellingham, Wash.	Sagua Grande, Cuba	Lumber, general	3,370	3,333	2,207
No. 238 [19]			6	13.11	6	20.45			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 240 [19]			6	13.11	6	20.45			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 243 [19]			6	13.37	6	22.35			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 245 [19]			6	13.37	6	22.35			American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 244 [19]			6	13.55	6	23.25	8	00.15	American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 235 [19]			6	13.55	6	23.35	8	00.15	American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
Havana Maru	6	6.12	6	15.15	7	00.35	7	10.20	Japanese	Osaka Shosen Kaisha	407.3	50.1	21.2	Kobe, Japan	New York, N. Y.	General	6,041	6,538	4,769
Manizales	6	10.00	6	15.25	6	23.50	10	11.05	German	Roland Line	216.5	32.9	14.0	Guayaquil, Ecuador	Cristobal, C. Z.	General	567	1,132	741
Vredenburg	6	14.05	7	2.54	7	11.08	7	11.08	Dutch	Halcyon Lyn	453.0	59.9	25.3	Vancouver, B. C.	Falmouth, England	Wheat	9,700	8,058	5,392
Santa Veronica	6	17.40	7	3.10	7	11.15	7	11.15	American	Amer. & Cuban Line	251.0	43.5	21.8	Portland, Oreg.	Baltimore, Md.	[29]	2,347	2,823	1,740
Dixie Arrow [1]	6	6.15	7	4.41	7	12.20	7	12.20	American	Standard Transp. Co.	468.3	62.7	27.3	Los Angeles, Calif.	Boston, Mass.	Gasoline	11,177	9,744	7,140
New York [20]	6	8.00	7	6.41	7	15.05	7	18.00	American	U. S. Navy	565.0	95.2		Los Angeles, Calif.	Guantananamo				
Darden	6	14.00	7	5.28	7	13.35	7	13.35	American	T. P. Gallagher & Co.	391.9	51.2	26.0	Manila, P. I.	New York, N. Y.	Coconut oil	6,500		
Whitney [26]			7	8.10	7	16.55	8	00.15	American	U. S. Navy	483.0	61.0		Balboa, C. Z.	Cristobal, C. Z.				
Robin [27]			7	8.20	7	16.50	8	00.15	American	U. S. Navy	180.0	35.0		Balboa, C. Z.	Cristobal, C. Z.				
Bobolink [28]			7	8.35	7	16.50	8	00.15	American	U. S. Navy	180.0	35.0		Balboa, C. Z.	Cristobal, C. Z.				
William H. Doheny [1]	6	14.25	7	9.41	7	18.20	7	18.20	American	Pan.-Amer. Pet. & Tr. Co.	435.0	56.2	26.6	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,800	7,406	5,111
No. 327 [19]			7	9.46	7	19.30	8	00.15	American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				
No. 294 [19]			7	9.46	7	19.30	8	00.15	American	U. S. Navy	310.0	31.0		Balboa, C. Z.	Cristobal, C. Z.				

[1] Tanker. [19] Destroyer. [20] Battleship. [21] Motor ship. [22] Cruiser. [23] For order. [24] Lumber, copper, hides. [25] Fresh apples and general. [26] Auxiliary.
[27] Auxiliary tug. [28] Mine sweeper. [29] Lumber and machinery.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Theodore Roosevelt [30]	6	19.30	7	10 22	7	20 50	8	14 30	Norwegian	Fred Olsen & Co	425.5	55.2	29.3	Vancouver, B. C.	Oslo, Norway	Grain, general	8,875	7,963	5,637
No. 283 [31]			7	10.52	7	19 30	8	00 15	American	U. S. Navy	310.0	31.0		Balboa, C. Z	Cristobal, C. Z				
No. 286 [31]			7	10.52	7	19.30	8	00.15	American	U. S. Navy	310.0	31.0		Balboa, C. Z	Cristobal, C. Z				
San Francisco [30]	7	10.00	7	12 08	7	21 45	8	18 45	German	Hamburg-American Line	432.3	59.1	25.0	Vancouver, B. C.	Hamburg, Germany	General	6,862	8,454	6,344
No. 284 [31]			7	12 30	7	23 21	8	00.15	American	U. S. Navy	310.0	31.0		Balboa, C. Z	Cristobal, C. Z				
No. 285 [31]			7	12.30	7	23.21	8	00.15	American	U. S. Navy	310.0	31.0		Balboa, C. Z	Cristobal, C. Z				
Indian City	7	11.55	7	13.17	7	23.55	8	00.59	British	Sir W. R. Smith & Sons	411.0	53.6	28.0	Vancouver, B. C.	Hamburg, Germany	Wheat	9,020	6,512	4,465
No. 281 [31]			7	13 34	7	23 21	8	00.15	American	U. S. Navy	310.0	31.0		Balboa, C. Z	Cristobal, C. Z				
Lark			7	13.54	7	23.55	9	06 20	American	U. S. Navy	180.0	35.6		Balboa, C. Z	Cristobal, C. Z				
Port Hobart [30]	6	9.40	7	15.16	8	12 45	8	12.45	British	Com'lth & Dom. Line	470.0	59.6	28.2	Melbourne, Aust'ia	London, England	Frozen, general	7,044	10,041	7,271
Counsellor	7	13.25	8	2.06	8	11 05	8	13.50	British	T. & J. Harrison	395.5	52.5	24.1	Vancouver, B. C.	London, England	(35)	6,573	5,753	3,857
Phoenicia [30]	7	14.00	8	3 15	8	12 10	9	15 00	German	Hamburg-American Line	374.2	53.6	15.3	Champerico, Guat.	Hamburg, Germany	(40)	1,473	5,425	3,508
Lompoc	7	18.00	8	4.42	8	13.35	8	13 35	British	C. T. Bowring & Co	435.0	55.8	26.6	Los Angeles, Calif.	London, England	Gas oil	9,565	7,496	5,423
Canonsea	7	17.45	8	5.51	8	14 52	8	14.52	British	Furness-Prince Line	450.0	58.3	24.0	Seattle, Wash	London, England	Apples	4,486	8,956	6,562
O-6 [32]			8	6 00	8	16.25			American	U. S. Navy	175.0	16.4		Balboa, C. Z	Cristobal, C. Z				
O-10 [32]			8	6.00	8	16.25			American	U. S. Navy	175.0	16.4		Balboa, C. Z	Cristobal, C. Z				
Rochester [33]			8	7.15	8	16.30	9	10.10	American	U. S. Navy	384.0	64.9	25.7	Balboa, C. Z	Cristobal, C. Z				
Willboro	8	4.00	8	8.07	8	18.15	9	6 32	American	Williams S. S. Line	414.7	55.7	29.0	San Francisco, Cal.	New York, N. Y.	Lumber, general	9,000	7,717	5,763
S-9 [32]			8	8 15	8	16.25			American	U. S. Navy	231.0	20.0		Balboa, C. Z	Cristobal, C. Z				
Maliko	8	6.30	8	9 21	8	19.08	8	19 08	American	Matson Line	415.0	53.7	25.6	Seattle, Wash	Boston, Mass	General	4,834	7,072	4,944
British Justice [1] [30]	8	7.30	8	10.18	8	29 28	8	29 28	British	Anglo-Persian Oil Co	440.7	59.1	25.6	Los Angeles, Calif.	Land's End, Eng. [37]	Gasoline	9,298	7,625	5,197
Vestalia	8	8.45	8	11.30	8	22 09	8	22 00	British	DuPont de Nemours	428.4	56.0	24.0	Iquique, Chile	Pensacola, Fla	Nitrates	8,250	6,199	4,412
Salmonpool	8	12.00	8	13.18	8	23 40	9	1 05	British	Sir R. Ropner & Co	390.1	55.5	23.6	Vancouver, B. C.	Hampton Rds. [37]	Wheat	7,666	5,801	4,412
Finn [30]	8	10.45	8	14.20	9	8.50	9	15.25	Swedish	Colombian Mar. Co	273.7	41.0	15.9	Buenaventura, Col.	New York, N. Y.	(38)	709	2,472	1,513
Boston Maru	8	14.15	9	5.30	9	14.00	9	14 00	Japanese	Wessel, Duval & Co	400.0	53.0	25.8	Antofagasta, Chile.	Pensacola, Fla	Nitrates	7,497	5,876	4,240
Marsodak	8	23.30	9	5.20	9	13.00	10	23 40	American	Nelson S. S. Co	324.0	46.2	23.4	Los Angeles, Calif.	Baltimore, Md	(39)	4,459	3,984	2,628
El Grillo [1]	9	1.00	9	7 31	9	15.05	9	15 05	British	C. T. Bowring & Co	440.5	57.5	28.0	Talara, Peru	Halifax, N. S.	Crude oil	9,575	7,468	5,042
Baltic [1] [30]	8	22.00	9	8 01	9	16.35	9	16.20	Danzig	Standard Shipping Co	509.5	64.1	29.0	Talara, Peru	New York, N. Y.	Crude oil	13,200	10,550	7,888
No. 35 [34]			9	9.20	9	17.45	11	14.05	American	U. S. Navy	200.0	28.0		Balboa, C. Z	Cristobal, C. Z				
No. 58 [34]			9	9.05	9	17.45	11	15.04	American	U. S. Navy	200.0	22.0		Balboa, C. Z	Cristobal, C. Z				
S-10 [32]			9	9.00	9	17.35			American	U. S. Navy	231.0	20.0		Balboa, C. Z	Cristobal, C. Z				
W. S. Rheem [2]	8	23 50	9	10 30	9	18 55	9	18 55	American	Standard Oil Co. of Cal.	500.0	68.2	28.6	Los Angeles, Calif.	Baltimore, Md	Gasoline	13,750	11,224	7,895
Castor [1] [30]	8	23.30	9	11 47	9	20.00	9	20.00	Swedish	Anglo-Saxon Pet. Co	466.0	61.8	28.0	San Francisco, Cal.	Land's End, Eng. [37]	Gasoline	11,878	8,960	6,295
Orduna	9	2.00	9	12.53	9	21.30	10	12.10	British	Pacific Steam. Nav. Co.	550.3	67.3	31.6	Talcahuano, Chile	Liverpool, England	(40)	6,405	17,146	12,015
Perseus	8	20.20	9	13.51	9	22.20	9	22 20	Greek	Kulukundis & Marg's	390.0	52.7	27.7	Antofagasta, Chile.	Azores [37]	Nitrates	7,701	6,283	4,619
Margarethe Cords	9	6.45	9	13.56	9	23 30	10	1.20	German	Colombian Mar. Co	266.0	42.0	10.6	Buenaventura, Col.	Rio Hacha, Col.	Ballast			

[1] Tanker. [30] Motor ship. [31] Destroyer. [32] Submarine. [33] Cruiser. [34] Eagle boat. [35] Grain, fruit, and lumber. [36] Coffee, honey, and sugar. [37] For orders.
[38] Coffee, hides, and general. [39] Lumber, explosives, and general. [40] Tin ore and nitrates.

Robin Goodfellow	9	4.05	9	14.41	10	00.05	10	00.05	American	Seas Shipping Co	428.0	55.2	28.0	Seattle, Wash.	Philadelphia, Pa.	(43)	7,942	7,471	5,536
Pat [41]			9	13.48					American	C. P. Morgan				Balboa, C. Z.	Gatun Lake, C. Z.				
Doris [42]			9						Panaman	United Fruit Co	37.5			Balboa, C. Z.	Gatun Lake, C. Z.	(44)			
No. 31053 [42]			9						Panaman	United Fruit Co.				Balboa, C. Z.	Gatun Lake, C. Z.	(45)			
No. 31051 [42]			9						Panaman	United Fruit Co.				Balboa, C. Z.	Gatun Lake, C. Z.	(45)			
No. 31066 [42]			9						Panaman	United Fruit Co				Balboa, C. Z.	Gatun Lake, C. Z.	(45)			

[41] Commercial launch. [42] Barge. [43] Lumber and magnesite ore. [44] Towing barges. [45] Towed by *Doris*.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
March 3	I. C. White	Huasteca Petroleum Co	Sam Nichols, D. W. I.
March 3	No. 8044 [46]	Pan-American Airways	Miami and wayports.
March 3	No. 9717 [46]	Pan-American Airways	Managua via wayports.
March 3	Ulysses	Royal Netherlands S. S. Co	Amsterdam via wayports.
March 4	Mercian	Leyland Line	Liverpool via wayports.
March 5	Brion	Royal Netherlands S. S. Co	Curaçao, D. W. I.
March 5	Guadeloupe	French Line	St. Nazaire via wayports.
March 6	Suriname	United Fruit Co	New Orleans, La.
March 6	Sommerstad	A. F. Klaveness	High seas for repairs.
March 6	Anachucuna [47]	United Fruit Co	Colon, R. P.
March 7	Inapaquina [47]	United Fruit Co	Colon, R. P.
March 7	Sixaola	United Fruit Co	New York via Kingston.
March 7	Pastores	United Fruit Co	New York via wayports.
March 7	Macabi	United Fruit Co	New York via wayports.
March 8	Anachucuna [47]	United Fruit Co	Colon, R. P.
March 8	Amapala	Standard Fruit & S. S. Co	New Orleans, La.
March 8	Coppename	United Fruit Co	Bocas, R. P.
March 8	California	Cunard Line	New York via wayports.
March 8	Grunewald	Hamburg-American Line	Tampico via wayports.
March 8	Reliance	Hamburg-American Line	New York via wayports.
March 8	Manuel Arnus	Spanish Line	Barcelona via wayports.
March 8	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
March 9	San Pablo	United Fruit Co	New York.
March 9	Cartago	United Fruit Co	New Orleans via Habana.
March 9	No. 9726 [46]	Pan-American Airways	Port Limon, C. R.

* DEPARTURES.

Date.	Vessel.	Line.	For—
March 3	Ancon	Panama Railroad S. S. Line	New York via Haiti.
March 4	Heredia	United Fruit Co	New Orleans & wayports.
March 4	I. C. White	Huasteca Petroleum Co	Aruba, D. W. I.
March 6	Mercian	Leyland Line	Palo Alto, Cuba
March 6	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
March 6	Guadeloupe	French Line	Havre via wayports
March 6	Anachucuna [47]	United Fruit Co	Colon, R. P.
March 7	Inapaquina [47]	United Fruit Co	Colon, R. P.
March 7	Suriname	United Fruit Co	Pto. Colombia
March 8	Sixaola	United Fruit Co	New York via wayports.
March 8	Sommerstad	A. F. Klaveness	Hull via wayports.
March 8	Coppename	United Fruit Co	New Orleans.
March 8	Pastores	United Fruit Co	New York via wayports.
March 8	Anachucuna [47]	United Fruit Co	Colon, R. P.
March 9	No. 8044 [46]	Pan-American Airways	Miami and wayports.
March 9	Grunewald	Hamburg-American Line	Cartagena, Columbia
March 9	Atlantian	Leyland Line	Liverpool via wayports.
March 9	Amapala	Standard Fruit & S. S. Co	New Orleans via wayports
March 9	Reliance	Hamburg-American Line	New York via wayports.

[46] Airplane mail carrier. [47] Motor boat.

PORT OF BALBOA.

March 8	Ideal [48]	Hans Elliot	Darien, R. P.	March 9	Ideal [48]	Hans Elliot	Panama Bay, R. P.
March 8	Dos Hermanos [48]	A. Valdez	Bayano River, R. P.	March 9	Dos Hermanos	A. Valdez	Panama Bay, R. P.
March 8	El Colon [48]	Hans Elliot	Darien, R. P.	March 9	El Colon [48]	Hans Elliot	Panama Bay, R. P.
March 8	Dixie [49]	Amador Juan Dias	Panama Bay, R. P.	March 9	Dixie [49]	Amador Juan Dias	Panama Bay, R. P.
March 8	Kosmos [49]	Amador Juan Dias	Panama Bay, R. P.	March 9	Kosmos [49]	Amador Juan Dias	Panama Bay, R. P.

[48] Motor schooner. [49] Barge. * Other than ships passing through the Canal.

Origin and Destination of Cargo Passing Through the Panama Canal During the Calendar Year 1928.

On pages 454 to 457 of this issue will be found tables showing in detail the origin and destination of all cargo tonnage passing through the Canal in the calendar year ended December 31, 1928. This cargo, segregated according to direction, as compared with the calendar year 1927, and the differences, is shown in the following tabulation:

	Calendar year 1928.	Calendar year 1927.	Differences.
	Long tons.	*Long tons.*	*Long tons.*
Atlantic to Pacific	9,065,934	8,405,900	+660,034
Pacific to Atlantic	20,335,647	20,696,638	−360,991
Totals	29,401,581	29,102,538	+299,043

As will be noted above, tonnage from the Atlantic to the Pacific increased 660,034 tons over that in the calendar year 1927, and that from the Pacific to the Atlantic decreased 360,991 tons, or a net gain in the combined traffic over the calendar year 1927 of 299,043 tons. Nearly all of the larger commodities, with the exception of mineral oils, increased during the year. Atlantic-bound mineral oils decreased over 2,500,000 tons, but most of this loss was offset by the increases in other commodities.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Over 66 per cent of the cargo moving from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 25.2 per cent in Europe. Cargo originating in the United States increased 379,199 tons, or 6.7 per cent, and that from Europe increased 274,156 tons, or 13.7 per cent, over the calendar year 1927.

Destination.—Almost 42 per cent of all cargo from the Atlantic to the Pacific was destined to the west coast of the United States; 22.7 per cent to Asia; 15.1 per cent to Australasia; and 13.6 per cent to South America. Cargo to the west coast of the United States showed an increase of 364,508 tons, or 10.5 per cent, over the previous year; that to Asia a gain of 319,245 tons, or 18.3 per cent, and that to South America, a gain of 68,619 tons, or 5.8 per cent. Tonnage to Australasia showed a decrease of 71,703 tons, or 5 per cent.

PACIFIC-TO-ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 49.6 per cent originated on the west coast of the United States; 27.9 per cent in South America; 15.4 per cent in Canada; 3.4 per cent in Australasia; and 3.0 per cent in Asia. Cargo from the west coast of the United States decreased 2,339,134 tons, or 18.8 per cent under the previous year, on account of lessened mineral oil shipments. Tonnage from South America increased 527,178 tons, or 10.2 per cent; that from Australasia, an increase of 103,052 tons, or 17.4 per cent; and that from Asia, an increase of 57,417 tons, or 10.7 per cent.

Destination.—Segregated according to destination, 52.9 per cent of the cargo moving from the Pacific to the Atlantic during the year was destined to the eastern and Gulf seaboards of the United States, and 40.3 per cent in Europe. Tonnage destined to Europe increased 1,579,276 tons, or 23.9 per cent, and that to the United States decreased 1,051,468 tons, or 8.9 per cent, under the calendar year 1927. Heavy nitrate and wheat shipments contributed largely to the increase to Europe, while the slump in mineral oil movement accounted for the falling off of cargo to the United States.

PRINCIPLE COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify almost 85 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 15 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Atlantic-to-Pacific bound commodities which aggregated more than 100,000 tons in either the calendar year 1928 or the calendar year 1927 are listed in the following tabulation, showing differences:

Commodity.	Calendar year 1928.	Calendar year 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Ammonia	94,010	104,325	−10,315
Automobiles	190,537	120,786	+69,751
Cement	298,823	244,106	+76,589
Coal and coke	268,040	208,573	+42,909
Cotton	309,718	384,128	−74,410
Manufactured goods:			
Iron and steel	2,351,051	2,020,342	+330,709
Machinery	180,775	212,217	+31,442
Railroad material	243,132	166,543	+76,589
Textiles and other	279,063	236,159	+42,904
Metals, various	191,925	82,415	+109,510
Oils, mineral	726,583	668,823	+57,760
Paper	196,638	187,674	+8,964
Phosphates	262,395	159,865	+102,530
Sugar	73,172	141,515	−68,343
Sulphur	201,416	223,366	−21,950
Tobacco	137,714	71,367	+66,347

The above 16 commodity groups make up a little more than 66 per cent of the total cargo carried from the Atlantic to the Pacific through the Canal during the calendar year 1928. It will be noted that all items excepting ammonia, cotton, machinery, sugar, and sulphur, show increases.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify approximately 99 per cent of all cargo moving from the Pacific to the Atlantic during the calendar year 1928. Commodities which aggregated more than 100,000 tons either in that or the previous calendar year, with the increase or decrease, are listed below:

Commodity.	Calendar year 1928.	Calendar year 1927.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Barley	246,777	309,128	−62,351
Beans	156,236	84,859	+71,377
Canned goods (fish, fruit, vegetables, etc.)	867,178	720,179	+146,999
Coffee	143,142	105,806	+37,336
Cold storage (food products)[1]	307,563	236,712	+70,851
Copra	103,245	85,856	+17,389
Cotton	100,528	108,172	−7,644
Flour	126,322	88,206	+38,116
Lumber	3,548,910	3,396,627	+152,283
Metals, various	667,479	583,359	+84,120
Nitrates	2,449,326	1,961,734	+487,592
Oils, mineral	4,728,106	6,953,795	−2,225,689
Ores, various	1,633,769	1,681,265	−47,496
Sugar	576,045	539,220	+36,825
Wheat	2,820,425	2,034,523	+785,902
Wool	158,894	139,641	+19,253
Fruit, dried	308,268	231,742	+76,526
Fruit, fresh	132,652	93,081	+39,571

[1] Fresh fruit not included.

The above 18 commodity groups comprise over 93 per cent of the cargo moving from the Pacific to the Atlantic during the calendar year 1928. Fourteen of the items show increases and 4 decreases. Mineral oil showed a heavy decrease, while wheat, nitrates, lumber and canned goods showed the heaviest increases.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, During the Calendar Year 1928.

(Figures represent tons of 2,240 pounds.)

From—	South America						North America.						
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America.[1]	Balboa.[2]	Hawaii.	Total, North America.
North America:													
United States—													
North Atlantic ports	137,726	33,598	8,846	69,591	67,292	317,053	2,433,731	12,652	29,480	49	1,387	74,676	2,551,975
South Atlantic ports				1,220		1,220	46,051	3,455				50	49,556
Gulf ports	31,399	2,825	2,735	6,739	4,334	48,032	435,461	20,619	3,937		5,782	4,041	532,922
Totals, United States	169,125	36,423	11,581	77,550	71,626	366,305	2,915,243	36,726	33,417	49	7,169	78,767	3,071,371
Cristobal, C. Z.[2]	12,237	34,193	12,474	9,569	13,396	81,869	46,530	99	79,498		713		126,840
East coast of Canada							11,363	39,280					50,643
West Indies	372	20		161	49	602	58,544	3,852	342		13,202		75,940
East coast of Mexico and Cen. America	11,381	2,650		600		14,631	34,633	24	6,350				41,007
Totals, North America	193,115	73,286	24,055	87,880	85,071	463,407	3,066,313	79,981	119,607	49	21,084	78,767	3,365,801
Europe:													
British Isles	167,735	1,246	5,055	39,047	56,519	269,602	84,318	52,265	16,541	3,187		14,244	170,555
Belgium	32,954	19,774	4,985	17,622	14,789	90,124	232,791	23,568	9,688	1,208	219	2,778	270,252
Denmark	1,042	2,611	173	78	12,105	16,009	149	17	196		75		437
France	13,361		418	3,132	10,402	27,336	56,182	4,887	812		5		61,886
Germany	24,757	8,381	4,689	18,314	25,674	81,815	62,080	9,643	14,353	293	3,786	8,105	98,260
Holland	6,835	788	1,549	4,685	2,772	16,632	67,702	6,097	186	3,056			77,041
Italy	4,549		110	934	8,064	13,657	11,256	3,767	3,253				18,276
Norway and Sweden	15,217	8,478	111	1,364	16,762	41,932	58,844	3,160	18,697	419	10,250	2,447	93,817
Spain and Portugal	2,046		162	721	4,896	7,825	7,680	1,751	18				9,449
Yugoslav													
Europe[3]	15,133	2,424	760	9,260	171,589	199,166	73,749	10,098	34,798	14,194	372		133,211
Totals, Europe	283,635	43,722	18,012	95,157	323,572	764,098	654,751	115,253	98,542	22,357	14,707	27,574	933,184
East coast of South America	4	6,108		27	161	6,300	80,458	28,759			35	82	109,334
North Africa													
Grand totals, 1928	476,754	123,116	42,067	183,112	408,756	1,233,805	3,801,522	223,933	218,149	22,406	35,826	106,423	4,408,319
Grand totals, 1927	416,189	101,816	33,998	171,634	442,049	1,165,186	3,437,014	278,608	163,880	78,698	38,392	67,854	4,064,446
Per cent of total cargo, 1928	5.2	1.4	0.5	2.0	4.5	13.6	41.9	2.5	2.4	0.2	0.4	1.2	48.6
Per cent of total cargo, 1927	4.9	1.2	0.4	2.1	5.3	13.9	41.0	3.3	1.9	0.9	0.5	0.8	48.4

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, During the Calendar Year, 1928.

(Figures represent tons of 2,240 pounds.)

From—	Asia.					Australasia.				Grand Total.		Per cent of total cargo, 1928.	Per cent of total cargo, 1927.
	Japan.	China.	Philippines	Far East.[1]	Total, Asia.	Australia.	New Zealand.	Australasia[1]	Total, Australasia	1928.	1927.		
NORTH AMERICA:													
UNITED STATES—													
North Atlantic ports	383,842	254,265	118,095	259,529	1,015,731	298,452	67,522	36,965	402,939	4,287,698	4,073,571	47.4	48.4
South Atlantic ports	64,097	6,801	3,543	30,855	105,296	1,301	.....	.....	1,301	157,373	255,295	1.7	3.1
Gulf ports	576,527	193,427	44,155	78,043	892,152	87,025	30,370	36,074	153,469	1,563,493	1,300,499	17.2	15.5
Totals, United States	1,024,466	454,493	165,793	368,427	2,013,179	386,778	97,892	73,039	557,709	6,008,564	5,629,365	66.3	67.0
Cristobal, C. Z.[2]	23	2	.....	.....	25	8	.....	219	227	208,961	176,761	2.3	2.0
East coast of Canada	7,372	870	.....	5,121	13,363	58,405	60,647	7,043	126,095	190,101	189,448	2.1	2.3
West Indies	.....	14,267	.....	.....	14,267	.....	.....	.....	.....	90,809	160,298	1.0	1.9
East coast of Mexico and Central America	3,323	2,504	.....	7,500	13,327	45,563	14,071	.....	59,634	128,599	58,356	1.4	0.7
Totals, North America	1,035,184	472,136	165,793	381,048	2,054,161	490,754	172,610	80,301	743,665	6,627,034	6,214,228	73.1	73.9
EUROPE:													
British Isles	.....	.....	.....	.....	.....	20,461	444,872	46,912	512,245	952,402	825,066	10.6	9.8
Belgium	.....	1,915	.....	.....	1,915	5,834	41,722	.....	47,556	409,847	335,517	4.5	4.0
Denmark	.....	.....	.....	.....	.....	.....	.....	.....	.....	16,446	2,742	0.2	.....
France	.....	.....	.....	.....	.....	.....	.....	18,161	18,161	107,383	105,714	1.2	1.2
Germany	.....	.....	.....	.....	.....	555	.....	.....	555	180,630	215,778	2.0	2.6
Holland	.....	.....	.....	.....	.....	.....	.....	.....	.....	93,673	55,710	1.0	0.7
Italy	.....	.....	.....	.....	.....	.....	.....	.....	.....	31,933	40,566	0.3	0.5
Norway and Sweden	.....	.....	.....	.....	.....	4,512	.....	.....	4,512	140,261	80,336	1.5	1.0
Spain and Portugal	.....	.....	.....	.....	.....	.....	.....	.....	.....	17,274	26,650	0.2	0.3
Yugoslav	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,315	.....	0.1
Europe[1]	.....	.....	.....	.....	.....	.....	178	.....	178	332,555	314,854	3.7	3.7
Totals, Europe	.....	1,915	.....	.....	1,915	31,362	486,772	65,073	583,207	2,282,404	2,008,248	25.2	23.9
East coast of South America	3,573	39	.....	2,024	5,166	.....	.....	.....	.....	120,800	183,312	1.3	2.2
North Africa	.....	.....	.....	.....	.....	.....	35,696	.....	35,696	35,696	112	0.4	.....
Grand totals, 1928	1,038,757	474,090	165,793	382,602	2,061,242	522,116	695,078	145,374	1,362,568	9,065,934	.....	100.0	.....
Grand totals, 1927	894,292	414,516	134,856	298,333	1,741,997	747,248	600,381	86,642	1,434,271	.....	8,405,900	.....	100.0
Per cent of total cargo, 1928	11.5	5.2	1.8	4.2	22.7	5.8	7.7	1.6	15.1	100.0	.....	.....	.....
Per cent of total cargo, 1927	10.6	4.9	1.6	3.6	20.7	8.9	7.1	1.0	17.0	100.0	.....	.....	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing through the Panama Canal, from the Pacific to the Atlantic, During the Calendar Year 1928.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.				
	United States.				East coast of Canada.	West Indies.	East coast of Mexico.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.										
South America:														
Chile	1,848,222	411,283	232,322	2,491,827	17,950	8,800	34	9,969	2,528,580	304,799	61,860	454	94,005	219,971
Colombia	11,515	.....	21,959	33,474	.....	.....	.....	45,167	78,641	.....	34	.....	.....	202
Ecuador	85,651	.....	7,769	93,420	.....	12	.....	33,352	126,784	322	2,230	29	1,618	1,514
Peru	222,359	17,240	80	239,679	280,459	54	.....	37,189	557,381	180,233	25,035	4,032	12,803	49,544
West coast of S. America[1]	917	.....	.....	917	12,195	19	.....	5,753	18,884	6,352	2,725	.....	943	266
Totals, S. America	2,168,664	428,523	262,130	2,859,317	310,604	8,885	34	131,430	3,310,270	491,706	91,884	4,515	109,369	271,497
North America:														
West coast of Canada	337,888	786	8,956	387,630	101,968	39,813	2,104	1,432	532,947	1,136,352	167,747	10,540	61,914	237,181
West coast Cen. America	16,074	1,128	.....	17,202	.....	646	474	46,689	65,011	262	112	49	3,107	8,254
West coast United States	6,371,785	129,429	346,475	6,847,689	18,714	179,129	116,062	183,676	7,345,270	1,672,433	55,475	30,560	113,166	236,794
Hawaii	5,558	.....	20,204	25,762	.....	.....	.....	.....	25,762	2,776	131	.....	.....	33
Balboa	2,901	.....	919	3,820	.....	.....	.....	220	4,040	.....	.....	.....	.....	.....
West coast N. America[1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals, N. America	6,774,605	131,343	376,554	7,282,103	120,682	219,588	118,640	232,017	7,973,030	2,811,823	223,465	41,149	178,187	482,262
Asia:														
China	54,254	49	1,062	55,365	.....	20,024	.....	2,573	77,962	.....	.....	.....	.....	.....
Japan	22,263	4,911	.....	27,174	.....	.....	.....	66	27,240	4,892	.....	.....	.....	.....
Philippines	326,948	16,079	45,790	388,817	.....	.....	.....	.....	388,817	.....	.....	.....	.....	.....
Far East[1]	20,363	.....	390	20,753	.....	38,902	.....	400	60,055	12,465	.....	.....	.....	14,068
Totals, Asia	423,828	21,039	47,242	429,109	.....	58,926	.....	3,039	554,074	17,357	.....	.....	.....	14,068
Australasia:														
Australia	47,695	.....	.....	47,695	13,059	.....	.....	224	60,978	3,733	963	.....	3,072	.....
New Zealand	52,711	.....	.....	52,711	1,906	.....	.....	173	54,790	444,335	7,022	.....	4,946	.....
Australasia[1]	10,850	.....	.....	10,850	4,650	.....	.....	.....	15,500	34,730	.....	.....	23,971	1,783
Totals, Australasia	111,256	.....	.....	111,256	19,615	.....	.....	397	131,268	482,798	7,985	.....	31,989	1,783
Grand totals, 1928	9,477,954	580,905	685,926	10,744,785	450,901	287,399	118,674	366,883	11,968,642	3,803,684	323,334	45,664	319,545	769,610
Grand totals, 1927	10,674,971	606,486	515,195	11,796,652	557,154	436,805	39,512	816,217	13,646,340	2,814,395	174,413	38,117	224,242	470,395
Per cent of total cargo, 1928	46.6	2.9	3.4	52.9	2.2	1.3	0.6	1.8	58.8	18.7	1.6	0.2	1.6	3.8
Per cent of total cargo, 1927	51.6	2.9	2.5	57.0	2.7	2.1	0.2	3.9	65.9	13.6	0.8	0.2	1.1	2.3

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, During the Calendar Year, 1928.

(Figures represent tons of 2,240 pounds.)

From—	Europe.							East coast of South America.	Egypt.	South Africa.	Grand totals, 1928.	Grand totals, 1927.	Per cent of total cargo, 1928.	Per cent of total cargo, 1927.
	Holland.	Italy.	Norway and Sweden.	Russia.	Spain and Portugal.	Europe.[1]	Total, Europe.							
South America:														
Chile	45,346	40,111	10,800	10,907	23,654	1,040,204	1,852,111	1,199	87,324	.....	4,469,214	3,920,269	22.0	18.9
Colombia	184	.....	.....	.....	.....	61	481	604	.....	.....	79,726	45,579	0.4	0.2
Ecuador	1,041	3,889	20	.....	1,793	1,725	14,181	215	.....	.....	141,180	98,134	0.7	0.5
Peru	36,912	9,835	29,890	.....	.....	27,520	375,804	8,537	.....	.....	941,722	971,871	4.6	4.7
West coast of S. America[1]	.....	1,268	.....	.....	28	3,550	15,132	.....	.....	.....	34,016	101,827	0.2	0.6
Totals, South America	83,483	55,103	40,710	10,907	25,475	1,073,060	2,257,709	10,555	87,324	.....	5,665,858	5,138,680	27.9	24.9
North America:														
West coast of Canada	336,156	87,102	45,548	.....	73,625	415,501	2,571,666	15,091	.....	19,270	3,138,974	1,781,555	15.4	8.6
West coast Cen. America	3,398	1,085	11,209	.....	7,944	19,592	55,012	.....	.....	.....	120,023	86,071	0.6	0.4
West coast United States	141,972	77,139	29,757	.....	53,562	285,395	2,696,253	30,079	9,300	7,258	10,088,160	12,427,294	49.6	60.0
Hawaii	.....	.....	1,424	.....	.....	.....	4,364	.....	.....	.....	30,126	7,102	0.1	.....
Balboa	.....	.....	.....	.....	.....	396	396	.....	.....	.....	4,436	8,123	.....	.....
West coast North America[1]	.....	.....	.....	.....	.....	1,850	1,850	.....	.....	.....	1,850	122,062	.....	0.6
Totals, North America	481,526	165,326	87,938	.....	135,131	722,734	5,329,541	45,170	9,300	26,528	13,383,569	14,432,207	65.7	69.6
Asia:														
China	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	77,962	38,066	0.4	0.2
Japan	.....	.....	.....	.....	.....	.....	4,892	.....	.....	.....	32,132	51,158	0.2	0.2
Philippines	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	388,817	330,448	1.9	1.6
Far East[1]	.....	.....	.....	.....	.....	6,038	32,571	.....	.....	.....	92,626	114,448	0.5	0.6
Totals, Asia	.....	.....	.....	.....	.....	6,038	37,463	.....	.....	.....	591,537	534,120	3.0	2.6
Australasia:														
Australia	.....	.....	.....	.....	.....	.....	7,768	.....	.....	.....	68,746	83,925	0.3	0.4
New Zealand	.....	.....	.....	.....	.....	958	457,261	.....	.....	.....	512,051	388,458	2.5	1.9
Australasia[1]	6,203	.....	23,200	.....	.....	8,499	98,386	.....	.....	.....	113,886	119,248	0.6	0.6
Totals, Australasia	6,203	.....	23,200	.....	.....	9,457	563,415	.....	.....	.....	694,683	591,631	3.4	2.9
Grand totals, 1928	571,212	220,429	151,848	10,907	160,606	1,811,289	8,188,128	55,725	96,624	26,528	20,335,647	20,696,638	100 0	100.0
Grand totals, 1927	290,278	200,841	142,479	26,486	102,615	2,124,591	6,608,852	283,719	149,470	8,257	.....	.....	.....	.....
Per cent of total cargo, 1928	2.8	1.1	0.7	0.1	0.8	8.9	40.3	0.3	0.5	0.1	100.0	.....	.....	.....
Per cent of total cargo, 1927	1.4	1.0	0.7	0.1	0.5	10.3	32.0	1.4	0.7	.....	100 0	.....	.....	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Tanker Traffic Through the Panama Canal in February, 1929.

During the month of February, 1929, 82 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 448,427, on which tolls of $388,410.67 were collected. Cargo amounted to 395,049 tons. In point of net tonnage, tanker traffic for the past month showed an increase of 15.7 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage increased .86 per cent over the cargo tonnage of February, 1928.

Tank ships comprised 15.7 per cent of the total commercial transits through the Canal during the month; made up 18.5 per cent of the total Panama Canal net tonnage; were the source of 17.6 per cent of the total tolls collected; and carried 15.5 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of February, 1929, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals, for the two preceding months and for February, 1928:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	9	45,008	$35,375.12	16,234
Norwegian	6	27,464	19,774.08	.....
Swedish	2	10,792	7,770.24	.....
United States	29	162,953	120,345.18	20,111
Totals, February, 1929	46	246,217	183,264.62	36,345
Totals, January, 1929	46	241,780	177,508.56	.....
Totals, December, 1928	44	229,747	171,163.47	15,700
Totals, February, 1928	32	173,091	127,926.09	23,276
Pacific to Atlantic.				
British	6	33,906	35,887.50	64,572
Danish	1	6,054	6,322.50	11,942
French	1	4,178	4,501.25	7,350
Norwegian	1	5,442	5,810.00	9,582
United States	27	152,630	152,642.80	275,258
Totals, February, 1929	36	202,210	205,146.05	358,704
Totals, January, 1929	53	278,631	291,033.60	521,554
Totals, December, 1928	37	194,903	198,667.64	345,004
Totals, February, 1928	36	214,628	197,867.50	368,385

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months and for February, 1928:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
February, 1929	31	170,099	$124,280.17	8,397
January, 1929	32	174,269	125,631.30	.....
December, 1928	38	201,765	151,016.43	15,700
February, 1928	23	123,940	89,238.96	.....
From Los Angeles.				
February, 1929	26	143,336	143,518.55	257,589
January, 1929	40	206,611	215,099.85	391,511
December, 1928	26	136,116	137,683.75	243,385
February, 1928	25	154,113	135,786.25	254,025

Dimon Line Acquires Vessel from Shipping Board.

The United States Shipping Board has announced the sale of the steamer *West Hembrie* to the Dimon Steamship Corporation, operators in the United States intercoastal trade. After certain alterations, including the replacing of the present coal burning equipment with oil burning apparatus, and probably a change of name, the vessel is to be placed in the intercoastal service of the company. The ship is a steel cargo vessel 409.7 feet long, 54.2 feet beam, and of 8,570 deadweight tons.

The present fleet of the Dimon Line consists of the *Pacific Cedar*, *Pacific Spruce*, *Pacific Redwood*, *Pacific Hemlock*, *Pacific Fir*, and *Pacific Pine*.

Rare Birds in Cargo of "Canadian Cruiser."

A collection of 275 birds captured in New Guinea and in charge of Lee Saunders Crandall, curator of birds of the New York Zoological Park, passed through the Panama Canal on March 11, 1929, aboard the steamer *Canadian Cruiser*, en route from Australia for ports in eastern United States and Canada. The collection contained 40 birds of paradise, including nine species, and several species of wild pigeons and parrots of a kind which it is said have not been captured heretofore.

The *Canadian Cruiser* is owned by the Canadian National Steamships, and plys regularly in the trade between the east coast of North America and Australia.

Traffic by Nationality for February, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of February, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with corresponding totals for February, 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British	77	398,916	298,759	484,222	299,512	$344,794.89	267,239
Chilean	2	7,735	6,033	10,889	6,233	7,541.25	4,016
Colombian	5	1,420	1,360	2,181	1,376	1,672.10	2,020
Danish	6	24,435	17,243	27,773	17,428	21,553.75	25,423
Dutch	6	28,923	19,565	33,556	19,675	24,456.25	16,796
Finnish	2	7,094	5,368	7,764	5,251	5,796.00	8,450
French	6	24,654	19,759	30,648	18,667	24,698.75	11,704
German	18	61,969	44,306	73,222	43,635	54,561.35	60,701
Greek	2	8,003	5,199	8,341	5,256	5,762.16	.....
Italian	3	19,775	13,975	25,539	14,808	15,973.12	3,978
Japanese	7	35,483	30,277	44,747	29,969	35,541.72	36,394
Norwegian	16	58,410	47,829	79,524	47,699	47,757.29	28,294
Panaman	1	2,606	1,384	3,644	2,594	1,730.00	2,579
Peruvian	3	7,439	4,504	11,516	6,269	5,611.05	2,892
Spanish	1	4,051	3,606	5,853	3,624	2,916.72	.....
Swedish	10	43,434	32,009	71,254	38,818	33,123.21	13,838
United States	108	542,267	422,921	688,068	420,658	471,369.47	368,271
Yugoslav	4	17,090	13,075	20,667	13,116	14,230.81	11,749
Totals, February, 1929	277	1,293,704	987,172	1,629,408	994,588	1,119,089.89	864,344
Totals, February, 1928	267	1,207,793	917,832	1,498,684	916,250	1,043,679.76	713,293
Totals, February, 1927	252	1,257,453	972,143	1,573,520	971,924	1,075,530.67	731,172

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	4,792	4,142	6,511	4,172	$5,177.50	8,160
British	78	395,934	302,112	485,759	300,941	377,382.00	548,886
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	4,842
Colombian	4	1,257	1,196	1,948	1,210	1,493.10	1,161
Danish	5	21,324	16,029	25,996	16,132	19,446.81	36,260
Dutch	1	742	294	780	323	367.50	887
French	6	29,038	21,510	35,075	21,249	26,887.50	40,699
German	15	46,730	35,576	58,370	35,432	43,896.20	60,345
Greek	4	15,827	11,525	18,510	11,113	14,406.25	28,875
Italian	3	14,493	12,286	19,183	11,631	15,083.10	15,268
Japanese	3	15,196	12,975	18,663	12,781	16,218.75	24,331
Norwegian	10	30,451	24,998	39,916	24,201	31,226.90	53,212
Panaman	3	7,523	5,413	8,867	5,466	6,761.90	10,131
Peruvian	1	2,951	1,506	4,744	2,673	1,882.50	2,327
Spanish	2	8,391	6,911	11,407	7,123	8,638.75	9,048
Swedish	6	21,115	16,904	37,284	20,455	21,130.00	47,906
United States	99	501,883	389,560	631,059	390,563	486,230.05	769,751
Yugoslav	3	12,474	9,848	15,530	9,825	12,310.00	24,065
Totals, February, 1929	245	1,134,826	876,251	1,426,912	879,266	1,092,871.31	1,686,154
Totals, February, 1928	280	1,252,318	964,811	1,575,146	969,195	1,210,075.51	1,947,132
Totals, February, 1927	197	943,875	738,130	1,218,057	742,352	919,330.15	1,498,925

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	4,792	4,142	6,511	4,172	$5,177.50	8,160
British	155	794,850	600,871	969,981	600,453	722,176.89	816,125
Chilean	3	12,440	9,499	18,199	10,209	11,873.75	8,858
Colombian	9	2,677	2,556	4,129	2,586	3,165.20	3,181
Danish	11	45,759	33,272	53,769	33,560	41,000.56	61,683
Dutch	7	29,665	19,859	34,336	19,998	24,823.75	17,683
Finnish	2	7,094	5,368	7,764	5,251	5,796.00	8,450
French	12	53,692	41,269	65,723	39,916	51,586.25	52,403
German	33	108,699	79,882	131,592	79,067	98,457.55	121,046
Greek	6	23,830	16,724	26,851	16,369	20,168.41	28,875
Italian	6	34,268	26,261	44,722	26,439	31,056.22	19,246
Japanese	10	50,679	43,252	63,410	42,750	51,760.47	60,725
Norwegian	26	88,861	72,827	119,440	71,900	78,984.19	81,506
Panaman	4	10,129	6,797	12,511	8,060	8,491.90	12,710
Peruvian	4	10,390	6,010	16,260	8,942	7,493.55	5,219
Spanish	3	12,442	10,517	17,260	10,747	11,555.47	9,048
Swedish	16	64,549	48,913	108,538	59,273	54,253.21	61,744
United States	207	1,044,150	812,481	1,319,127	811,221	957,599.52	1,138,022
Yugoslav	7	29,564	22,923	36,197	22,941	26,540.81	35,814
Totals, February, 1929	522	2,428,530	1,863,423	3,056,320	1,873,854	2,211,961.20	2,550,498
Totals, February, 1928	547	2,460,111	1,882,643	3,073,830	1,885,445	2,253,755.37	2,660,425
Totals, February, 1927	449	2,201,328	1,710,273	2,791,577	1,714,276	1,994,860.82	2,230,107

Two Vessels for Swayne & Hoyt.

Announcement has been made by Swayne & Hoyt of San Francisco of the purchase of two lake-type freighters, the *Houston* and *Minooka*, for operation in the company's Gulf-Pacific Line. They will be renamed *Point San Pedro* and *Point San Pablo* to conform with the "point" prefix in the names of the Swayne & Hoyt's Gulf-Pacific fleet.

The newly acquired vessels, which are sister ships, are 324 feet in length, 46.2 feet in beam, and of 3,545 gross tons.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Commercial Traffic Through the Panama Canal in February, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of February, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for February, 1928 and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	72	387,927	300,325	483,209	298,847	$332,122.84	236,865
East coast of United States to west coast of South America:							
British	8	32,937	25,151	43,281	26,221	26,412.17	7,681
Chilean	2	7,735	6,033	10,889	6,233	7,541.25	4,016
Danish	1	3,468	2,256	3,718	2,307	2,820.00	4,018
Finnish	1	1,835	1,828	1,979	1,709	1,371.00	.....
Norwegian	1	4,730	4,105	6,583	4,119	3,405.60	.....
Peruvian	1	1,529	1,483	2,155	1,169	1,834.80	2,042
Swedish	4	11,508	9,779	33,959	11,042	9,286.49	1,115
United States	13	56,730	47,289	82,024	46,818	45,432.98	20,013
Totals	31	120,472	97,924	184,588	99,618	98,104.29	38,885
Europe to west coast Canada:							
British	12	64,249	46,236	72,231	44,526	48,754.45	5,159
Danish	2	10,874	8,680	13,650	8,706	10,850.00	12,473
Dutch	2	13,715	10,959	17,772	10,981	13,698.75	7,093
French	2	10,308	7,348	12,302	7,379	9,185.00	2,747
German	4	27,033	17,488	29,598	17,814	21,860.00	22,129
Italian	1	6,025	5,056	7,098	4,498	6,320.00	1,845
Norwegian	2	9,333	7,452	11,914	7,448	9,315.00	11,214
Swedish	1	4,919	2,878	4,960	3,665	3,597.50	2,676
Totals	26	146,456	106,097	169,525	105,017	123,580.70	65,336
Europe to west coast of South America:							
British	6	38,663	29,983	49,784	30,878	37,478.75	27,424
Danish	1	4,623	2,989	4,750	3,006	3,736.25	6,346
Dutch	2	13,724	8,018	14,224	8,048	10,022.50	9,431
French	2	8,613	7,426	11,694	7,332	9,282.50	6,277
German	6	23,604	18,339	28,327	17,323	22,126.75	29,239
Greek	2	8,003	5,199	8,341	5,256	5,762.16	.....
Italian	1	9,329	5,176	11,718	6,750	6,470.00	2,133
Spanish	1	4,051	3,606	5,853	3,624	2,916.72	.....
Yugoslav	4	17,090	13,075	20,667	13,116	14,230.81	11,749
Totals	25	127,700	93,811	155,358	95,333	112,026.44	92,599
Europe to west coast of United States:							
British	7	32,737	24,736	39,700	24,326	24,915.23	12,337
Italian	1	4,421	3,743	6,723	3,560	3,183.12	.....
Norwegian	5	22,548	19,370	33,012	19,239	16,234.56	.....
Swedish	4	21,661	15,884	26,547	19,811	15,904.22	7,449
Totals	17	81,367	63,733	105,982	66,936	60,237.13	19,786
East coast of United States to Far East:							
British	3	15,055	9,255	15,017	9,158	11,568.75	18,401
Danish	1	1,827	1,399	2,355	1,411	1,748.75	2,586
Japanese	5	25,051	21,884	31,642	21,363	27,009.30	34,004
Norwegian	1	3,542	2,889	4,694	2,846	3,611.25	3,952
United States	6	36,093	26,932	42,900	26,689	33,665.00	53,081
Totals	16	81,568	62,359	96,608	61,467	77,603.05	112,024
Europe to Australasia:							
British	11	76,394	55,970	91,017	56,746	69,746.74	63,608
French	2	5,733	4,985	6,652	3,956	6,231.25	2,680
Swedish	1	5,346	3,468	5,788	4,300	4,335.00	2,598
Totals	14	87,473	64,423	103,457	65,002	80,312.99	68,886

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
East coast of United States to Australasia:							
British	10	57,187	43,459	67,586	43,595	$54,173.55	59,076
United States	1	5,053	3,655	5,861	3,654	4,568.75	6,600
Totals	11	62,240	47,114	73,447	47,249	58,742.30	65,676
Cristobal, C. Z., to west coast of South America:							
Colombian	4	757	743	1,078	749	900.85	1,290
Dutch	2	1,484	588	1,560	646	735.00	272
German	3	2,450	1,743	3,194	1,778	2,178.75	1,336
Totals	9	4,691	3,074	5,832	3,173	3,814.60	2,898
East coast of United States to west coast of Canada:							
British	1	4,319	2,730	4,344	2,736	3,109.68	.....
United States	4	15,503	12,134	19,684	12,112	15,167.50	24,500
Totals	5	19,822	14,864	24,028	14,848	18,277.18	24,500
Europe to west coast Central America:							
German	3	7,172	5,292	9,491	5,286	6,590.85	4,177
Norwegian	2	1,238	1,090	1,827	1,007	891.36	.....
Totals	5	8,410	6,382	11,318	6,293	7,482.21	4,177
Cristobal, C. Z., to west coast of Central America:							
British	2	1,328	1,252	2,308	1,256	1,543.90	1,869
Colombian	1	663	617	1,103	627	771.25	730
German	2	1,710	1,444	2,612	1,434	1,805.00	3,820
Totals	5	3,701	3,313	6,023	3,317	4,120.15	6,419
East coast of Central America to west coast United States:							
United States	4	9,077	8,159	13,423	8,091	10,145.70	2,844
East coast of United States to Philippine Islands:							
British	2	10,480	6,873	12,012	6,933	8,591.25	13,920
Norwegian	1	4,134	3,214	5,242	3,264	4,017.50	6,550
Totals	3	14,614	10,087	17,254	10,197	12,608.75	20,470
Canadian intercoastal:							
British	3	12,486	9,846	16,260	10,141	12,307.50	17,399
South American intercoastal:							
Japanese	1	4,611	4,223	5,838	4,219	3,319.92	.....
Peruvian	2	5,910	3,021	9,361	5,100	3,776.25	850
Totals	3	10,521	7,244	15,199	9,319	7,096.17	850
West Indies to west coast of South America:							
British	2	8,237	7,120	11,676	7,034	8,900.00	16,234
Norwegian	1	4,916	4,315	7,102	4,434	3,539.52	.....
Totals	3	13,153	11,435	18,778	11,468	12,439.52	16,234
Africa to west coast of Canada:							
British	3	13,057	10,639	17,266	10,608	9,401.04	.....
East coast of United States to west coast of Central America:							
Norwegian	2	3,615	2,962	5,147	2,859	3,702.50	2,619
East coast of United States to Hawaiian Islands:							
United States	2	7,194	5,007	8,366	5,014	6,258.75	11,125
East coast of Canada to Australasia:							
British	1	4,402	3,257	5,370	3,260	4,071.25	3,038
United States	1	4,073	3,258	5,482	3,375	4,072.50	4,308
Totals	2	8,475	6,515	10,852	6,635	8,143.75	7,346
Europe to Far East:							
British	1	4,612	3,540	5,848	3,563	4,425.00	6,092
Finnish	1	5,259	3,540	5,785	3,542	4,425.00	8,450
Totals	**2**	**9,871**	**7,080**	**11,633**	**7,105**	**8,850.00**	**14,542**

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Around the world:							
United States	2	20,054	15,621	25,979	15,520	$19,526.25	8,935
United States intercoastal—foreign vessels in ballast:							
British	1	6,287	5,366	8,782	5,144	4,526.64	.....
East coast of United States to Balboa, C. Z.:							
United States	1	240	230	514	230	172.80	.....
East coast of Canada to west coast of United States:							
British	1	3,826	2,968	4,703	2,957	3,710.00	3,849
East coast of Canada to west coast of South America:							
British	1	5,042	4,355	7,259	4,414	3,630.24	.....
West Indies to east coast of United States:							
Danish	1	3,643	1,919	3,300	1,998	2,398.75	.....
Europe to Balboa, C. Z.:							
United States	1	303	296	606	292	222.00	.....
Europe to Hawaiian Islands:							
British	1	3,814	2,986	4,913	2,988	3,732.50	5,345
East coast of Central America to Australasia:							
British	1	3,804	3,037	4,865	3,028	3,796.25	5,807
East coast of South America to west coast of Canada:							
Norwegian	1	4,354	2,432	4,003	2,483	3,040.00	3,959
East coast of South America to Far East:							
Japanese	1	5,821	4,170	7,267	4,387	5,212.50	2,390
Cristobal, C. Z., to west coast of United States:							
Panaman	1	2,606	1,384	3,644	2,594	1,730.00	2,579
Cristobal, C. Z., to Balboa, C. Z.:							
United States	1	20	15	20	16	14.40	.....
Grand totals, Feb., 1929	277	1,293,704	987,172	1,629,408	994,588	1,119,089.89	864,344
Grand totals, Feb., 1928	267	1,207,793	917,832	1,498,684	916,250	1,043,679.76	713,293
Grand totals, Feb., 1927	252	1,257,453	972,143	1,573,520	971,924	1,075,530.67	731,172

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	72	389,367	298,292	479,758	298,751	$372,513.55	561,046
West coast Canada to Europe:							
British	34	160,879	121,088	193,579	119,768	151,200.60	261,326
French	1	4,834	3,223	5,390	3,219	4,028.75	7,020
German	1	6,680	4,909	8,116	4,887	6,136.25	8,382
Japanese	1	4,670	4,266	5,825	4,225	5,332.50	7,700
Norwegian	2	9,536	7,464	11,948	7,339	9,330.00	14,428
Swedish	2	8,219	5,897	9,242	7,057	7,371.25	10,864
United States	1	5,583	4,263	6,887	4,263	5,328.75	8,319
Totals	42	200,351	151,110	240,987	150,758	188,728.10	318,039
West coast South America to Europe:							
British	5	22,529	17,710	28,714	17,932	22,137.50	35,572
French	2	9,461	7,105	11,373	7,087	8,881.25	15,769
German	5	24,227	19,036	30,846	19,035	23,795.00	38,390
Greek	4	15,827	11,525	18,510	11,113	14,406.25	28,875
Italian	2	10,424	8,939	13,695	8,355	10,899.35	8,368
Spanish	2	8,391	6,911	11,407	7,123	8,638.75	9,048
Swedish	2	7,322	6,278	11,022	7,787	7,847.50	15,025
Yugoslav	3	12,474	9,848	15,530	9,825	12,310.00	24,065
Totals	25	110,655	87,352	141,097	88,257	108,915.60	175,112

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to east coast United States:							
British	9	40,765	33,970	55,401	34,613	$42,363.90	71,106
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	4,842
German	1	1,167	998	1,428	813	1,247.50	1,023
Norwegian	5	13,297	10,961	16,906	10,275	13,576.25	27,529
Panaman	1	4,897	4,014	6,386	4,067	5,017.50	8,872
Swedish	2	5,574	4,729	17,020	5,611	5,911.25	22,017
United States	15	63,785	52,413	90,520	53,122	65,310.70	145,348
Totals	34	134,190	110,451	194,971	112,477	137,759.60	280,737
West coast of United States to Europe:							
British	9	37,641	30,499	46,179	28,581	38,123.75	60,526
Danish	3	16,634	12,645	20,413	12,726	15,806.25	30,960
French	2	9,114	6,839	11,305	6,541	8,548.75	14,185
German	1	5,755	3,774	6,079	3,810	4,717.50	7,290
Italian	1	4,069	3,347	5,488	3,276	4,183.75	6,900
Norwegian	1	5,442	4,648	7,824	4,666	5,810.00	9,582
Totals	17	78,655	61,752	97,288	59,600	77,190.00	129,443
West coast South America to Cristobal, C. Z.:							
Colombian	4	1,257	1,196	1,948	1,210	1,493.10	1,161
Dutch	1	742	294	780	323	367.50	887
German	3	2,450	1,743	3,194	1,778	2,178.75	1,447
Peruvian	1	2,951	1,506	4,744	2,673	1,882.50	2,327
Totals	9	7,400	4,739	10,666	5,984	5,921.85	5,822
Australasia to Europe:							
British	13	104,745	74,582	120,467	75,518	93,227.50	78,619
French	1	5,629	4,343	7,007	4,402	5,428.75	3,725
Totals	14	110,374	73,925	127,474	79,920	98,656.25	83,344
Philippine Islands to east coast United States:							
Danish	1	2,967	1,929	3,177	1,931	2,400.00	5,300
Japanese	2	10,526	8,709	12,838	8,556	10,886.25	16,631
United States	3	17,711	14,102	20,993	13,098	17,627.50	26,905
Totals	6	31,204	24,731	37,008	24,585	30,913.75	48,836
West coast of United States to east coast of Central America:							
United States	4	9,239	8,276	13,504	8,281	10,296.75	4,907
West coast of Central America to Cristobal, C. Z.:							
British	2	1,441	1,286	2,298	1,304	1,607.50	2,015
German	2	1,710	1,444	2,612	1,434	1,231.20	.....
Totals	4	3,151	2,730	4,910	2,738	2,838.70	2,015
West coast of Central America to Europe:							
German	2	4,741	3,672	6,095	3,675	4,590.00	3,813
Norwegian	1	1,189	1,061	1,657	944	1,326.25	1,483
Totals	3	5,930	4,733	7,752	4,619	5,916.25	5,296
West coast of South America to east coast Canada:							
British	2	13,699	11,595	20,342	11,855	14,493.75	27,000
Australasia to east coast of Canada:							
British	2	8,301	6,571	10,862	6,586	8,213.75	4,553
Canadian intercoastal:							
British	1	4,186	3,322	5,439	3,336	4,152.50	6,005
West coast Canada to east coast United States:							
United States	1	4,465	3,637	5,869	3,637	4,546.25	6,216
West coast of United States to Cristobal, C. Z.:							
Panaman	1	2,606	1,384	2,461	1,384	1,730.00	1,259
Central American intercoastal:							
Norwegian	1	987	964	1,581	977	1,184.40	190

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West coast of Central America to east coast United States:							
British	1	1,748	1,489	2,478	1,448	$1,861.25	1,159
West coast Central America to West Indies:							
Danish	1	1,723	1,464	2,406	1,475	1,240.56	.....
West coast South America to Egypt:							
Belgian	1	4,792	4,142	6,511	4,172	5,177.50	8,160
Australasia to east coast of United States:							
United States	1	4,881	3,374	5,428	3,374	4,217.50	6,638
Far East to east coast United States:							
United States	1	6,612	4,973	7,587	4,808	6,216.25	10,342
Balboa, C. Z., to east coast of United States:							
United States	1	240	230	513	229	172.80	.....
Balboa, C. Z., to Cristobal, C. Z.:							
Panaman	1	20	15	20	15	14.40	.....
Grand totals, Feb., 1929	245	1,134,826	876,251	1,426,912	879,266	1,092,871.31	1,686,154
Grand totals, Feb., 1923	230	1,252,318	964,811	1,575,146	969,195	1,210,075.51	1,947,132
Grand totals, Feb., 1927	197	943,875	738,130	1,218,057	742,352	919,330.15	1,498,935

Executive Order.

By virtue of the authority conferred upon the President of the United States by the so-called Panama Canal Act approved August 24, 1912 (37 Stat. 560) and the so-called Air Commerce Act approved May 20, 1926 (44 Stat. 568), I hereby declare the Panama Canal Zone including the "three mile limit" to be a Military Airspace Reservation.

The following regulations, applying exclusively to private aircraft as herein described, will control aerial navigation in the Panama Canal Zone.

* * * * * * *

1. *Definitions.* The following shall be deemed to be state aircraft:

(*a*) Military and naval aircraft;

(*b*) Aircraft exclusively employed in state service, such as post, customs, and police. Every other aircraft shall be deemed to be a private aircraft.

All state aircraft, other than military, naval, customs and/or police aircraft shall be treated as private aircraft, and as such shall be subject to all the provisions of these regulations.

"AIRCRAFT" as used herein means "any contrivance now known or hereafter invented, used, or designed for navigation of or flight in the air, except a parachute or other contrivance designed for such navigation but used primarily as safety equipment."

"AIRSPACE" as used herein shall be construed to mean the air vertically overlying any area that may be designated.

2. Subject to the provisions of Executive Order No. 4971, dated September 28, 1928,[1] the control of civil aviation in the Panama Canal Zone shall be under the direction of the Governor of the Panama Canal.

3. Private aircraft shall be considered to have the nationality of the state in which it is duly registered, but no aircraft will be considered as validly registered in more than one state.

4. All private aircraft intending to enter the Panama Canal Zone or the airspace thereof shall carry in the custody of the aircraft commander:

(*a*) A certificate of registration, duly certified to according to the laws of the state in which it is registered;

(*b*) A certificate of airworthiness, as provided for by the laws of its country;

(*c*) Certificates of competency of the commander, pilots, engineers, and crew, as provided by the laws of its country, and in addition, the certificate shall set forth that the pilot has passed a satisfactory examination with regard to the provisions of regulations controlling aerial navigation in the Panama Canal Zone.

(*d*) If passengers are carried, a list of their names, addresses, and nationality.

(*e*) If carrying merchandise, the bills of lading, and manifests, and all other

[1] Executive Order No. 4971 was published in THE PANAMA CANAL RECORD of October 24, 1928.

documents required by customs laws and regulations of the state from which the aircraft last cleared.

(*f*) Log books.

(*g*) If equipped with radio apparatus, the corresponding license.

5. Upon landing in the Panama Canal Zone, the private aircraft, its contents, crew, and passengers will be inspected by proper authorities designated by the Governor. This inspection will cover the papers of the aircraft including registrations, certificates, and licenses, prohibited articles, immigration, customs, police, and sanitary regulations in force or hereafter placed in force in the Panama Canal Zone.

6. (*a*) Every private aircraft engaged in air traffic in and through the airspace of the Panama Canal Zone will be required to enter, transit, and leave in accordance with prescribed routes, and to land at a designated airdrome in the Canal Zone, except in case of forced landing, which must be proved. If for any reason any private aircraft lands in the Panama Canal Zone at a point other than the airports designated, the aircraft commander shall immediately notify the nearest Panama Canal Zone authorities and hold himself, crew, passengers, and cargo at the point of landing until clearance for a take-off is granted by competent authority, except in an emergency which must be proved.

(*b*) Every private aircraft engaged in aerial navigation in and through the airspace of the Panama Canal Zone prior to its departure from the territorial jurisdiction of the Panama Canal Zone shall obtain such clearance as is required by the laws and/or regulations of the Canal Zone at the airdrome designated as point of departure for the Panama Canal Zone.

(*c*) All inspections, regulations, and administration of commercial aviation will be conducted at designated landing areas within the Panama Canal Zone.

(*d*) In addition to the provisions of this order, the Governor of the Panama Canal will prepare such other rules and regulations as may become necessary from time to time, governing air traffic, method of entering, leaving, and/or transiting the Canal Zone; designating prohibited areas, landing fields, signals, markings, and allied subjects. Such rules and regulations will be submitted to the Secretary of War for approval and will be forwarded by him to the Secretary of State for promulgation.

7. In special circumstances the Governor of the Panama Canal may suspend any or all aircraft operations over or within the Canal Zone.

8. *Prohibited articles.*

(*a*) The carriage by private aircraft of arms and munitions of war, and of such articles as are or may be prohibited by law and regulations of the United States in force in the Panama Canal Zone or of the state in which the aircraft is registered is prohibited.

(*b*) Express license and authority must be procured from authorized Panama Canal Zone officials for the carriage in private aircraft of arms for hunting or protection of crew and cargo, commercial explosives, photographic apparatus not boxed and sealed, and such other articles as the Governor of the Panama Canal may prescribe.

9. *Photography.* It is unlawful to use or to permit or procure the use of a private aircraft for the purpose of making any photograph, sketch, picture, drawing, map, or graphical representation of military and naval installations or equipment in the Panama Canal Zone, without first obtaining permission of the Governor of the Panama Canal and thereafter promptly and before any use is made thereof, submitting the product made to the same authority for censorship or such other action as he may deem necessary.

10. (*a*) Such services, supplies, and shelter as are or may be authorized by Army or Navy Regulations may be furnished to private aircraft when in the opinion of responsible officials measures for the defense of the Canal Zone will not be jeopardized or embarrassed thereby.

(*b*) Furnishing of other services, supplies, and shelter shall be by regulation promulgated by properly constituted authority.

(*c*) The Governor of the Panama Canal will regulate the use of military or naval landing areas as airports by private aircraft within the limits authorized by the War Department and the Navy Department to the extent which may be necessary for the maintenance of efficiency of installations for the defense of the Canal.

11. *Penalties.* Under authority of Section 10 of the Panama Canal Act (37 Stat. 560), any person violating any of the regulations promulgated herein or pursuant to this order shall be guilty of a misdemeanor, and on conviction in the District Court of the Canal Zone shall be punished by a fine not exceeding Five Hundred ($500.00) Dollars, or by imprisonment not exceeding one year, or both, in the discretion of the Court.

CALVIN COOLIDGE

THE WHITE HOUSE,
February 18, 1929.

[No. 5047]

United States Intercoastal Traffic by Commodities for February, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for February, 1929, and the totals for February, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise but they are indicative of the kind and quantity of the cargo in transit through the Canal. The figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Aeroplanes	28	.....	28
Agricultural implements	1,989	.....	1,989
Alfalfa meal	.....	700	700
Ammonia	119	.....	119
Asbestos	13	.....	13
Asphalt	31	82	113
Automobiles	1,158	40	1,198
Automobile accessories	51	93	144
Bamboo	.....	34	34
Beans	58	5,856	5,914
Borax	.....	665	665
Bricks	179	.....	179
Burlap	102	74	176
Calcium carbide	63	.....	63
Camphor	.....	221	221
Canned:			
Fish	759	9,822	10,581
Fruit	149	26,014	26,163
Meat	68	.....	68
Milk	165	408	573
Soup	676	.....	676
Vegetables	240	6,076	6,316
Miscellaneous	5,866	4,842	10,708
Celite filtercel	.....	705	705
Cement	706	.....	706
Chalk	23	.....	23
Charcoal	93	.....	93
Chemicals	1,867	917	2,784
China and fire clay	299	.....	299
Coal	2,100	.....	2,100
Cocoanuts	30	106	136
Coffee	16	227	243
Cold storage:			
Cheese	.....	13	13
Eggs	.....	30	30
Lard	108	20	128
Meat	.....	195	195
Other	161	.....	161
Confectionery	621	.....	621
Cork	165	.....	165
Cotton	342	1,864	2,206
Cottonseed oil cake	28	.....	28
Cyanide	83	.....	83
Drugs	744	38	782
Earthenware	200	.....	200
Explosives	162	.....	162
Fertilizer	.....	100	100
Flour	901	4,645	5,546
Fruit:			
Dried	.....	10,684	10,684
Fresh	129	.....	129
Furniture	518	.....	518
General	52,350	10,668	63,018
Glass and glassware	1,534	22	1,556
Glue	28	157	185
Granite	24	.....	24
Hair	13	11	24
Hardwoods	3,300	160	3,460
Hay	.....	705	705
Hemp	22	1,435	1,457
Honey	.....	67	67
Infusorial earth	.....	350	350
Ink	95	.....	95
Jute	.....	66	66
Lineoleum	1,216	.....	1,216
Liquors	101	.....	101

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Lumber	1,094	147,628	148,722
Malt	80	.....	80
Manufactured goods:			
Iron and steel	100,404	120	100,524
Machinery	4,172	952	5,124
Railroad material	4,866	.....	4,866
Tinplate	10,165	.....	10,165
Textiles	4,882	92	4,974
Miscellaneous	6,801	6,095	12,896
Matches	170	14	184
Metals:			
Antimony	.....	177	177
Copper	37	6,295	6,332
Iron	1,360	520	1,880
Scrap	92	207	299
Zinc	30	1,256	1,286
Other	.....	40	40
Milk, powdered	90	314	404
Molasses	151	.....	151
Nuts	.....	329	329
Oats	26	.....	26
Oils:			
Cocoanut	30	.....	30
Cottonseed	14	.....	14
Crude	8,397	26,877	35,274
Gas oil, fuel oil	.....	56,414	56,414
Gasoline, benzine, and naphtha	.....	161,338	161,338
Kerosene	.....	20,118	20,118
Lubricating and greases	2,168	628	2,796
Olive	13	.....	13
Vegetable	575	.....	575
Wood	2	.....	2
Ores:			
Magnesite	.....	1,257	1,257
Manganese	.....	165	165
Other	58	.....	58
Paint	487	33	520
Paper	3,768	3,074	6,842
Paper pulp	.....	3,080	3,080
Paper roofing	11	.....	11
Peanuts	121	80	201
Peas	.....	50	50
Phosphates	3,706	.....	3,706
Porcelain	50	930	980
Rags	20	639	659
Rice	830	244	1,074
Rope	151	12	163
Rosin	694	.....	694
Rubber:			
Manufactured	1,339	147	1,486
Scrap	.....	80	80
Salt	133	.....	133
Seeds:			
Grass	.....	87	87
Hemp	.....	25	25
Other	.....	160	160
Shells	1,665	.....	1,665
Silk	.....	23	23
Skins and hides	13	1,614	1,627
Slate	126	.....	126
Soap	2,094	83	2,177
Soda	65	.....	65
Soda, ash	2,037	.....	2,037
Soda, bicarbonate	365	.....	365
Soda, caustic	487	.....	487
Starch	19	.....	19
Sugar	278	6,170	6,448
Sulphur	12,774	.....	12,774
Syrup	268	.....	268
Talc	65	84	149
Tallow	.....	117	117
Tar	132	.....	132
Tea	110	37	147
Tobacco	1,420	44	1,464
Turpentine	58	.....	58
Vegetables	.....	62	62
Waste	21	679	700
Wax	195	.....	195
Wheat	.....	535	535
Wine	72	170	242
Wool	.....	2,049	2,049
Totals, February, 1929	258,944	539,256	798,200
Totals, February, 1928	210,677	580,239	790,916
Totals, February, 1927	229,499	550,844	780,343

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., March 20, 1929. No. 33.

Canal Traffic During First Fifteen Days of March.

During the first 15 days of March, 271 commercial vessels and 7 small launches transited the Canal. Tolls on the commercial vessels aggregated $1,194,314.32, and on the launches, $70.50, or a total tolls collection of $1,194,384.82.

The daily average of transits of commerical vessels was 18.06 and the average tolls collection, $79,620.95. The average amount of tolls paid by each of the commercial transits was $4,407.06, as compared with $4,288.58 for the first 15 days of February. The total number of commercial transits for the first 15 days of March was 14 fewer than the number passing through in the first 15 days of February, while the tolls collected fell short by almost $28,000.00 of the amount collected during the first 15 days of February.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 8½ months of the current fiscal year, with the daily averages of transits and tolls:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,199,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January	603	2,502,815.12	19.45	80,735.97
February	522	2,211,961.20	18.64	78,998.62
March (first 15 days)	271	1,194,314.32	18.06	79,620.95
Totals	4,581	19,272,385.87	17.75	74,699.17

Large Shipment of Refrigerated Apples.

The steamship *Canonesa* transited the Canal on March 7, 1929, en route from Portland and Seattle to Hamburg, Rotterdam, and London, with a full cargo of refrigerated apples, aggregating 4,486 long tons. This is believed to be the largest shipment of apples carried by any vessel transiting the Canal to date. Of this cargo, 3,619 tons were destined to Hamburg, 576 tons to Rotterdam, and 291 tons to London.

The *Canonesa* is operated by the Furness Prince Line.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 16, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Poseidon	9	1.15	10	6.05	10	18.43	10	19.44	German	Hamburg-American Line	450.7	57.2	19.6	Hamburg, Germany	Valparaiso, Chile	General	4,387	7,681	5,234
Jadden	9	22.40	10	6.30	10	20.03	11	11.52	American	Roosevelt S.S. Co., S.B.	410.5	54.0	24.0	Baltimore, Md	Shanghai, China	Case oil, general	6,106	7,496	5,823
Comliebank [2]	9	23.55	10	7.50	10	21.00	11	3.48	British	Andrew Weir & Co	419.0	53.0	23.6	New York, N.Y.	Taku Bar, China	Case oil, general	6,920	7,097	4,993
Sunbeam [1]	10	00.10	10	8.55	10	21.55	10	22.53	American	Sun Oil Co	429.3	59.2	19.11	Philadelphia, Pa	Los Angeles, Calif	Ballast		7,709	5,562
Jamaica	3	9.45	10	9.35	10	21.04	10	22.19	British	Pacific Steam Nav. Co	220.0	34.0	14.7	Cristobal, C.Z.	Champerico, Guat	General	834½	1,187	622
V-4 [3]	8	2.15	10	9.40	10	23.08	11	1.17	American	U.S. Navy	381.0	35.0		High seas	Balboa, C.Z.				
Manizales	6	23.50	10	11.05	10	22.18	10	23.25	German	North German Lloyd	216.5	32.0	13.11	Cristobal, C.Z.	Buenaventura, Col.	General	271	1,132	741
Limon	10	3.40	10	11.05	10	23.17	11	1.17	American	United Fruit Co	330.0	44.4	18.8	Port Limon, C.R.	San Francisco, Cal.	Bananas, general	558	3,680	2,234
Lebore	9	13.30	10	12.35	11	00.15	11	1.58	American	Ore S.S. Corp	549.0	72.0	23.6	Baltimore, Md	Cruz Grande, Chile	Ballast		7,481	4,975
India Maru	9	22.10	10	13.45	11	1.13	11	2.40	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	25.3	Hull, England	Kobe, Japan	General	6,772	5,928	4,381
Montgomery City	10	1.00	10	15.15	11	2.10	11	3.48	American	Isthmian S.S. Lines	424.2	56.2	25.3	Baltimore, Md	Singapore, St. Sett.	General	8,189	7,611	5,459
Silverbelle [2]	10	1.10	10	16.40	11	3.04	11	4.35	British	Kerr S.S. Co	425.0	58.0	23.2	New York, N.Y.	Colombo, Ceylon	General	3,284	8,218	6,037
Nebraskan	10	2.40	10	17.40	11	3.55	11	4.49	American	Amer.-Hawaiian Line	471.1	59.1	23.9	Boston, Mass	Portland, Oreg	General	4,485	9,032	6,638
Zacharias	10	6.15	10	18.35	11	5.07	11	6.16	Greek	G. Z. Lyhardopulo	390.0	53.0	17.0	Barry, England	Arica, Chile	Ballast		6,006	4,287
Strathlorne	10	7.15	10	20.35	11	6.15	11	7.23	British	Burrell & Son	376.0	52.0	18.4	Cardenas, Cuba	Los Angeles, Calif	Sugar	3,000	4,799	3,623
San Zotico [1]	10	8.28	11	6.25	11	18.39	11	20.15	British	Anglo-Mexican Pet. Co.	400.0	52.0	20.6	Curacao, D.W.I.	Antofagasta, Chile	Fuel oil	7,557	6,032	3,892
Victolite [1] [2]	10	19.20	11	6.25	11	19.45	11	21.19	British	Imperial Oil Co., Ltd	510.0	68.2	27.3	Halifax, N.S.	Talara, Peru	Ballast		11,575	7,648
Buenaventura	10	8.30	11	9.35	11	20.45	11	22.00	American	Panama R.R. S.S. Line	251.0	43.0	20.9	New York, N.Y.	Guayaquil, Ecuador	General	1,149	2,873	1,776
S-14 [3]			11	10.33	11	21.00			American	U.S. Navy	231.0	21.10		Cristobal, C.Z.	Balboa, C.Z.				
S-16 [3]			11	10.33	11	21.00			American	U.S. Navy	231.0	21.10		Cristobal, C.Z.	Balboa, C.Z.				
S-15 [3]			11	10.33	11	22.25			American	U.S. Navy	231.0	21.10		Cristobal, C.Z.	Balboa, C.Z.				
S-17 [3]			11	10.33	11	22.25			American	U.S. Navy	231.0	21.10		Cristobal, C.Z.	Balboa, C.Z.				
Calmar	11	3.45	11	11.55	11	22.23	11	23.47	American	Calmar S.S. Corp	384.6	51.2	28.6	Baltimore, Md	Seattle, Wash	Steel, general	8,522	6,347	4,453
Atlanta City	11	16.43	11	17.00	12	2.14	12	8.08	American	Isthmian S.S. Lines	425.0	56.0	26.0	Mobile, Ala	Darien, China	([6])	8,261	7,611	5,450
Port Victor	11	18.18	12	6.25	12	21.50	12	22.00	British	Com'lth & Dom. Line	470.0	58.0	25.6	New York, N.Y.	Adelaide, Australia	Case oil, general	2,597	9,336	6,682
Persephone [2]	11	23.05	12	7.28	12	21.50	13	19.30	Danzig	Baltic-Amer. Pet. Co.	469.0	63.0	23.0	Hamburg, Germany	Los Angeles, Calif	Ballast		9,336	6,338
Chetopa	12	1.05	12	8.55	12	22.55	13	00.40	American	Charles Nelson & Co	324.0	46.2	20.0	Baltimore, Md	Los Angeles, Calif	General	3,289	3,984	2,628
Liverpool Maru	12	2.50	12	10.23	12	23.00	13	4.11	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.3	Tampico, Mexico	Kobe, Japan	([7])	6,705	5,919	4,400
Santore	11	13.25	12	11.50	12	23.48	13	1.25	American	Ore S.S. Corp	450.1	57.0	20.3	Norfolk, Va	Cruz Grande, Chile	Ballast		7,808	5,139
Bolton Castle	12	10.18	12	13.20	13	00.58	13	4.30	British	James Chambers & Co	424.0	53.0	26.0	New York, N.Y.	Shanghai, China	General	6,360	6,537	4,837
Gen. Wm. M. Graham [4]			12	18.15	12	19.39			American	U.S. Army	156.0	32.0		Cristobal, C.Z.	Gatun, C.Z.				
Santos Maru [2]	12	17.20	13	6.05	13	14.47	13	15.50	Japanese	Osaka Shosen Kaisha	430.0	56.0	21.6	Buenos Aires, Arg	Kobe, Japan	General, etc	4,088	7,875	5,821
Asuka Maru [2]	12	19.35	13	7.20	13	15.25	13	16.25	Japanese	Nippon Yusen Kaisha	440.0	57.0	25.0	Baltimore, Md	Kobe, Japan	General	6,269	8,139	5,389
Curaca	13	6.40	13	8.45	13	16.44	13	17.45	Panaman	Grace Line	403.0	52.4	15.4	Mobile, Ala	Tocopilla, Chile	Ballast		6,804	4,897
Bushnell [5]	12	13.45	13	8.50	13	16.36			American	U.S. Navy	300.0	45.8		High seas	Balboa, C.Z.				

[1] Tanker. [2] Motor ship. [3] Submarine. [4] Mine planter. [5] Submarine tender. [6] Steel, cotton, and general. [7] Zinc, cotton, and lubricating oil.

City of Cambridge	12	19.50	13	9.55	13	18.28	13	19.45	British	Bucknall Line	454.0	58.0	27.0	New York, N. Y.	Fremantle, Aust'lia	General	10,944	9,183	6,954
Fella [8]	12	15.35	13	11.34	13	19.13	13	20.45	Italian	Nav. Libera-Tristina	433.0	55.0	18.4	Tricste, Italy	Vancouver, B. C.	General	1,821	7,784	6,035
West Loquassuck	13	7.15	13	12.50	13	20 35	14	2.35	American	Roosevelt S. S. Co., S. B.	499.6	54.2	24 8	New York, N. Y.	Fremantle, Aust'lia	[12]	1,947	6,644	4,910
Aconcagua	13	7.45	13	14.00	13	21.30	13	22.55	Chilean	South American Line	421.0	56.2	25.0	New York, N. Y.	Valparaiso, Chile	General	2,854	7,764	4,705
Panaman	13	9.10	13	15.45	13	22.25	13	23.30	American	Amer.-Hawaiian Line	407.7	53.7	20.0	New York, N. Y.	Los Angeles, Calif.	General	3,822	7,098	5,065
Robert Luckenbach	13	13.15	13	16.45	13	23.30	14	1 30	American	Luckenbach Line	445.0	58.0	23.0	Boston, Mass	Portland, Oreg.	General	6,012	8,695	6,375
Atlanticos	13	16.20	13	18 10	14	2 00	14	11 38	Greek	Rethymnis & Kulu'dis	410 7	54.0	15.0	Gibraltar	Arica, Chile	Ballast		6,221	4,482
Vinemoor [8]	12	21.45	14	6.40	14	14 39	14	18.40	British	W. Runciman & Co.	375.0	52 6	14.6	Tyne, England	Los Angeles, Calif	Ballast		6,099	4,691
Coquina	6	19.25	14	6.15	14	14.49	14	16 30	American	Panama Mail S. S. Co.	251 0	43.0	16.3	Cristobal, C. Z	San Francisco, Cal.	General	1,467	2,290	1,459
Siljestad [8]	13	17.47	14	6.35	14	16 10	14	17.25	Norwegian	A. F. Klaveness & Co.	376.6	54.0	24.6	Pt. Tampa, Fla	Shanghai, China	[13]	7,054	6,264	4,706
Geo. W. Barnes [8]	13	21.30	14	7 50	14	22 12	14	23 47	American	American Oil Co.	416 8	56 1	22 0	Baltimore, Md.	Los Angeles, Calif.	Ballast		6,763	4,759
Induna	14	00.35	14	9.10	14	17.00	14	18.2	British	Wessel, Duval & Co.	410 0	52.0	15.0	Baltimore, Md.	Iquique, Chile	Ballast		5,634	4,172
Point Bonita	14	4.10	14	10.35	14	18.40	14	19.45	American	Gulf-Pacific Line	321.0	46.0	24.0	Galveston, Texas	Seattle, Wash.	General	4,421	3,984	2,617
Canadian Challenger	14	11.10	14	11.45	14	19.40	15	4.47	British	Can. Nat. Steamships.	400.0	52.6	17 2	Halifax, N. S.	Dunedin, N. Z.	General	4,325	6,142	4,354
Cauca [8]	12	9 15	14	12.01	14	19.46	15	3.57	Colombian	National Navigation Co.	167 4	22.0	9.1	Cristobal, C. Z.	Buenaventura, Col	General	407	238	163
Calveston [9]	14	9.20	14	15.00	15	00.45			American	U. S. Navy	308 0	44.0		High seas	Balboa, C. Z.				
Trinidad [10]			14		14	11.50			American	San Blas Develop. Co.				Cristobal, C. Z.	Gatun, C. Z.	Ballast		3	3
Canadian Explorer	14	15.30	14	17 0	15	20.21	15	22.25	British	Can. Nat. Steamships.	400.0	52 0	20 0	Halifax, N. S.	Brisbane, Australia	General	2,709	5,853	4,058
Hanley	13	23.30	15	6.15	15	15.32	15	16.45	American	Norton, Lilly & Co.	415.0	53 9	20.4	New York, N. Y.	Seattle, Wash.	General	10,597	8,310	6,005
Pacific Exporter [8]	14	7.55	15	7.22	15	17.29	15	18.27	British	Furness, Withy & Co.	430.0	56 6	21.0	Glasgow-England	Vancouver, B. C.	General, bananas	1,347	9,633	6,998
Benjamin Franklin [8]	14	11 00	15	7 40	15	19 15	16	14.05	Norwegian	Fred Olsen & Co.	452 0	59 5	23 9	Oslo, Norway	Vancouver, B. C.	General, bananas	6,148	9,082	6,140
Santa Cruz	14	18.20	15	9.38	15	17.48	15	19.05	American	Grace Line	284 0	50 2	19.8	New York, N. Y.	San Antonio, Chile	General	2,631	5,534	3,838
San Tiburcio [8]	15	16.15	15	16 30	15	23.18	16	5 01	British	Anglo-American Pet. Co.	497 0	53.4	18 0	Southampton, Eng.	Martinez, Calif.	Ballast		5,997	4,069
Sunoil [8]	15	17 45	15	18.00	16	1 2	16	9 43	American	Sun Oil Co.	437.6	55.0	22 0	Chester, Pa.	Los Angeles, Calif	Ballast		9,610	6,396
St. Mihiel [11]	15	19 18	15	19.5	16	2.28	16	22 2	American	U. S. Army	446 0	58 0	24 2	New York, N. Y.	San Francisco, Cal.	Army supplies	643½		
Baralt	14	15 45	16	6 05	16	16 3	16	17 47	Dutch	Royal Neth. S. S. Co.	200 0	33.0	12.0	Cristobal, C. Z.	Buenaventura, Col.	General	148	1,183	742
Larry Doherty	16	00.27	16	6 35	16	17 37	16	18 3	American	Richfield Oil Co.	429 0	59 2	19.0	New York, N. Y.	Los Angeles, Calif	Ballast		7,494	5,198
Willzipo	16	2 45	16	7 22	16	20 17	17	1 33	American	William S. S. Line	415.0	53 0	20.0	Baltimore, Md.	Tacoma, Wash.	General	4,500	7 731	5,895
Skegness	16	6 30	16	7 47	16	21 2	17	2.4	British	Reardon-Smith Line	401 6	54 3	14 0	Manchester, Eng	Vancouver, B. C.	Ballast		6,621	1,916
San Casio [11]	16	7 18	16	8 30	16	21 2			British	Anglo-Peruvian Co.	305 6	51 2	12.9	Arabia, D. W. I.	Balboa, C. Z.	Ballast			
Independence	16	7.45	16	9 28	16	22 0	16	23 2	American	Tampa Interocean Co.	440.0	56.0	25.0	Boca Grande, Fla.	Manila, P. I.	General	8,493	8,290	6,063
Broad Arrow [8]	16	12.35	16	12.45	16	23 54	16	23.58	American	General Petroleum Co.	467.6	62 7	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,700	6,842
Frontenac [8]	16	10.33	16	14.05	16	23.58	17	00.55	Norwegian	Halle & Peterson	440 9	58 4	24.0	Middlesboro, Eng.	Seattle, Wash.	Creosote	9,000		
Erfurt [8]	14	00 20	16	17 25	17	00.58	17	2.00	German	Roland Line	365.0	47 0	20 6	Hamburg, Germany	Champerico, Guat.	General	854	5,038	3,533
Heinrich Arp	16	14 10	16	18 20	17	2 37	17	3 55	German	Colombian Mar. Co.	277 0	37 0	13 8	New York, N. Y.	Buenaventura, Col.	General	567	1,718	1,167
Dechet	16	18 10	16	18 30	17	2.41	17	3.55	American	Redwood Line	386 8	52 0	22 0	Mobile, Ala	San Francisco, Cal.	General	5,012	5,795	4,167
Oriole	16	19.18	16	19.30	17	3.24	17	5.00	American	Quaker Line	419.5	54.2	20.0	Philadelphia, Pa.	Portland, Oreg.	General	4,950	6,755	4,873

[8] Tanker. [9] Motor ship. [10] Cruiser. [11] Launch. [12] Transport. [13] To Balboa, C. Z. for dry-docking. [14] General and automobiles. [15] Phosphates, cotton, and lubricating oil.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Pilar de Larrinaga	9	6 50	10	2 51	10	10 30	10	12 15	British	Larrinaga & Co	445 0	55 0	25 6	Vancouver, B. C.	Rotterdam, Holland	Grain	9,588	7,643	5,562
Port Antonio	9	23 45	10	2 58	10	10 20	12	21 25	Norwegian	United Fruit Co	235 0	33 6	15 1	Puntarenas, C. R	Port Limon, C. R.	General	375	1,326	725
Massmar	9	7.00	10	4.19	10	11.25	10	11.25	American	Calmar S. S. Corp	385.0	51.2	25.7	Vancouver, B. C.	Boston, Mass	Lumber	6,042	6,242	4,471
Edward Luckenbach	9	16 40	10	5 36	10	13 05	10	13.05	American	Luckenbach Line	436 0	57 2	29 0	Los Angeles, Calif	Philadelphia, Pa.	General	6,343	8,543	6,429
Corinthic	10	2.05	10	6 25	10	14.30	10	22.15	British	Shaw, Savill & Albion	500 0	62 3	27 3	Wellington, N. Z	London, England	Frozen, general	3,719	12,821	9,507
Feltre [15]	10	00.05	10	7 28	10	15 39	10	19 50	Italian	Nav. Libera-Tirestina	436 6	55 4	26 0	Vancouver, B. C.	Trieste, Italy	General	9,000	7,795	6,041
Osiris [15]	10	00 45	10	8 52	10	16.40	10	16 40	German	Hamburg-American Line	376 2	51 7	24 5	Vancouver, B. C.	Hamburg, Germany	General	5,891	5,788	4,023
Guayaquil	10	4.00	10	9 04	10	17.55	11	15.45	American	Panama R. R. S. S. Line	251 0	42 6	15 6	Guayaquil, Ecuador	New York, N. Y.	General	817	2,874	1,944
Ucayali	10	5.00	10	10 05	10	17 55			Peruvian	Peruvian Line	374 7	46 0	20 3	Callao, Peru	Cristobal, C. Z	Copper, cotton	2,018	4,466	2,405
Chelatres	10	9.00	10	11 25	10	19 40	10	19 40	Greek	Cassos Steam Nav. Co	360 0	52 6	24 2	Iquique, Chile	Azores	Nitrates	6,810	4,715	3,384
Vinland [15]	10	9.45	10	13.05	10	21.20	10	21.20	Norwegian	Scand.-So. Pacific Co	368 5	53.7	24 6	Iquique, Chile	London, England	General	7,000	5,413	3,965
Osborn Holmaden [1 15]	10	6.55	10	14.04	10	22.10	10	22.10	Norwegian	A. F. Klaveness & Co	471.8	61.4	27.7	San Francisco, Cal.	Land's End, Eng	Gasoline	12,500	9,562	6,604
Commercial Trader	10	12.10	10	14 45	10	23.25	10	23.25	American	Moore & McCormack	399 0	51.0	27 2	Iquique, Chile	Charleston, S. C.	Nitrates	7,700	6,190	4,455
Amerikaland [20]	10	12 30	11	5.36	11	14.35	11	14.35	Swedish	Ore S. S. Corp	561 0	72 2	33.6	Cruz Grande, Chile	Baltimore, Md	Iron ore	21,800	15,560	4,498
Birmingham City	10	12 53	11	6.43	11	15 50	11	15 50	American	Isthmian S. S. Lines	395 5	55 0	25 6	N. Westminster, B.C	Newark, N. J	Lumber	7,123	7,304	5,188
Sunewco	11	1.00	11	7.05	11	16 40	11	16.40	American	Transmarine Lines	324 0	46 2	23.0	Seattle, Wash	New York, N. Y.	Lumber	4,000	3,984	2,612
Wirral	10	14.10	11	7.50	11	17 45	11	18 59	British	J. Edgar & Co	385.0	52 0	23 0	Rabaul, N. Guinea	New York, N. Y.	([18])		7,191	5,131	3,664
S-9 [16]			11	7.52	11	16 35			American	U. S. Navy				Balboa, C. Z	Cristobal, C. Z				
Brunswick [1 15]	10	16.45	11	9.17	11	18 10	11	18.10	Panaman	Atlantic Refining Co	471.0	63 5	27 0	Los Angeles, Calif	Hamburg, Germany	Gasoline	12,771	9,178	6,450
Mary Ellen O'Niel [1 15]	11	5.20	11	10.13	11	18 58	11	18 58	American	The Texas Co	509.7	70 3	29 4	Los Angeles, Calif	Baltimore, Md	Gasoline	17,234	12,514	8,427
Santa Teresa	11	10 00	11	11.05	11	20 00	11	22 00	American	Grace Line	360 2	51 6	25 6	Talcahuano, Chile	New York, N. Y	General	3,923	5,726	4,086
Kofuku Maru	11	4.40	11	13 12	11	22 06	12	1.05	Japanese	Kokusai Kisen Kaisha	385 0	51 0	27 0	Victoria, B. C.	Greece	Wheat	7,617	6,209	4,763
Birkenhead [1]	11	5.30	11	13.48	11	22.00	11	22.00	American	Vacuum Oil Co	425 0	57 0	26 7	Los Angeles, Calif	Baltimore, Md	Gasoline	9,460	7,502	4,982
Canadian Cruiser	10	20.15	11	14.26	11	22 40	12	7.25	British	Can. Nat. Steamships	430 0	56 2	20 0	Sydney, Australia	Halifax, N. S	General	2,578	7,680	5,518
Tatsuna Maru	11	4.00	11	21 25	12	9.25	12	12.53	Japanese	Nippon Yusen Kaisha	445 0	58 0	24 7	Manila, P. I.	New York, N. Y.	General	9,289	8,015	5,716
Cauca [15]	11	20.20	11	22.35	12	9 50			Colombian	National Navigation Co.	107 0	22 9	9 0	Buenaventura, Col.	Cristobal, C. Z	([19])	153½	238	163
Pacific Fir	11	6 45	11	22 50	12	10 30	12	10.30	American	Dimon S. S. Corp	410 5	54 0	25 1	Seattle, Wash	New York, N. Y.	Lumber	7,464	6,624	4,883
Pajala [15]	11	13.15	12	1.34	12	12 05	12	12.05	Swedish	Can.-Amer. Ship. Co	418 5	55 1	29 0	Portland, Oreg	Belfast, Ireland	([20])	9,569	7,274	5,213
Langley [17]	11	7.00	12	6.14	12	14.25	14	00.05	American	U. S. Navy	520 0	65.2	26 0	San Diego, Calif	Philadelphia, Pa.				
Mystic	12	4.50	12	7.24	12	16.00	12	16.00	American	Munson McCor'k Line	400.7	54 2	26 2	Seattle, Wash	New York, N. Y.	Lumber, general	7,426	6,633	4,668
Paul Luckenbach	12	8.00	12	9.10	12	17.20	12	17.20	American	Luckenbach Line	471.1	59.2	27.7	Portland, Oreg	Boston, Mass	Lumber, general	9,070	9,027	6,539

[1] Tanker. [15] Motor ship. [16] Submarine. [17] Airplane carrier. [18] Copra and chrome ore. [19] Coffee, gold, and platinum. [20] Wheat, lumber, and general.

Bantu	12	9.15	12	10.10	12	21 00'	12	23.30	American	Norton, Lilly & Co.	360.0	47.0	25.3	Tocopilla, Chile	Savannah, Ga.	Nitrates	5,960	4,607	3,032
Sedgepool	12	11.50	12	12 37	12	22.15	13	2 00	British	Sir R. Ropner & Co.	415.0	55.5	23.6	Vancouver, B. C.	Antwerp, Belgium	Wheat	8,390	6,641	4,812
Mexican	12	11.25	12	12.34	12	22.45	12	21.25	American	Amer.-Hawaiian Line	472.3	57.2	28.3	Portland, Oreg.	Boston, Mass	Lumber, general	10,000	9,258	6,944
Charles Christenson	12	12.30	12	13.47	12	23.30	13	1.30	American	Arrow Line	409.7	51.2	24.9	Portland, Oreg.	Savannah, Ga.	Lumber	7,164	6,693	4,915
London Importer	12	13 00	12	15 24	13	10.35	13	15.00	British	Furness Pacific Line	450.4	58.0	28 2	Vancouver, B. C.	Glasgow, Scotland	General	7,503	8,529	5,993
San Mateo	12	20 30	12	22 30	13	8 55	..	..	American	United Fruit Co	315 2	44 2	22.0	San Francisco, Cal.	Port Limon, C. R.	Coffee, general	852	3,496	2,141
Levant Arrow [1]	12	18.46	13	2.17	13	11 50	13	11.50	American	Standard Oil Co. of N.Y.	468.3	62 7	28 0	Los Angeles, Calif.	Providence, R. I.	[23]	12,013	9,811	6,985
Cumberland	12	14.30	13	3.15	13	12 58	13	12 58	British	Federal Steam Nav.Co	520.0	64 2	22.0	Timaru, N. Z.	London, England	General	6,655	12,930	9,300
Calliope [1 21]	13	1.45	13	4.00	13	14.10	13	14.10	Danzig	Waried Tanks. Rhederei	470.2	63.2	26.1	Talara, Peru	Hamburg, Germany	Naphtha	11,254	9,001	5,927
Chateau Thierry	11	16 07	13	6 18	13	15 10	13	15 16	American	U. S. Army	448.0	58 0	24 0	Honolulu, T. H.	Brooklyn, N. Y.	Army supplies	164	....	....
Royal Arrow [1]	13	5 00	13	6 42	13	16.30	13	16.30	American	Standard Transp. Co.	476.6	62.7	26.6	Los Angeles, Calif	New York, N. Y.	Gasoline	11,180	9,699	6,895
Galveston [22]	....	....	13	7 34	13	18 00	13	19 10	American	U. S. Navy	292 0	44 0	....	Balboa, C. Z.	Cristobal, C. Z.	....	....	....	....
Tiltborn	13	5 00	13	7.50	13	18 50	13	18.50	Norwegian	O. G. & F. H. Olsen	429 2	53 9	28.2	Iquique, Chile	New Orleans, La.	Nitrates	10,100	6,591	4,730
W. L. Steed [1]	13	6 30	13	8 35	13	20 03	13	20.03	American	Hunsteca Petroleum Co.	416 8	56.1	27.0	Los Angeles, Calif	Baltimore, Md.	Gasoline	8,800	6,751	4,795
Minnesota	13	6.40	13	9 30	13	21 40	..	..	French	French Line	412.3	50.6	25 1	Vancouver, B. C.	Havre, France	General	6,530	....	....
Rapot	13	12.45	13	13.44	13	22 40	..	..	German	North German Lloyd	393.4	54 3	26.0	Buenaventura, Col.	Bremen, Germany	General	8,017	6,583	4,626
Gen'l Wm. M. Graham	....	....	13	....	13	17 30	....	....	American	U. S. Army	160 2	32.0	....	Pedro Miguel, C. Z.	Cristobal, C. Z.	....	....	....	....
Woodfield	13	16.00	14	5.00	14	12.35	14	12 35	British	Anglo-Chilean Nitrate Co.	400.0	53.0	21.2	Tocopilla, Chile	Pensacola, Fla.	Nitrates	7,400	5,798	4,118
Sagoland	14	2.00	14	6 15	14	14 18	14	14 18	Swedish	Axel Brostrom & Son	430 2	54.2	25 0	Vancouver, B. C.	Sunderland, Eng.	Wheat	8,556	6,810	5,014
Baralt	14	5.30	14	7 16	14	15 45	16	6 05	Dutch	Royal Neth. S. S. Co.	202 9	33.1	12.0	Guayaquil, Ecud'r	Cristobal, C. Z.	General	458	1,183	742
Dartford [1]	14	7 15	14	8 20	14	16 25	14	19 05	American	Gladstone Transp. Co.	391.9	52 0	26 0	Los Angeles, Calif.	Baltimore, Md.	Crude oil	7,331	5,403	3,753
Cherry Branch	14	8 05	14	8 52	14	17.10	14	18.05	British	F. & W. Ritson	400.0	51.8	24.0	Corral, Chile	Liverpool, Eng.	General	6,598	5,403	3,960
City of Panama [21]	14	5.48	14	10 31	14	17 58	....	....	Panama	Panama Mail S. S. Co.	296 9	45.9	21.0	San Francisco, Cal.	Cristobal, C. Z.	[24]	2,731	3.848	2,603
Mahana	14	10.50	14	11.33	14	19.45	14	23.15	British	Shaw, Savill & Albion	500.9	63.3	25.0	Bluff, N. Z.	London, England	Frozen, general	6,284	12,442	8,954
San Lamberto [1]	14	11 50	14	19 09	15	11 30	15	13 05	British	Anglo-Mexican Pet. Co.	395.3	55 2	20.0	Antofagasta, Chile	Curacao, D. W. I.	Ballast	....	6,741	4,345
Impero	14	21 50	15	5 27	15	13 58	15	15 50	Italian	Italian-Chilean Line	442 1	52.7	26 0	Tocopilla, Chile	New York, N. Y.	Copper ore	7,997	7,004	4,849
Bethore	15	00 20	15	6 35	15	15 55	15	15 55	American	Ore S. S. Corp.	550.3	72 2	34 0	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,840	15,476	4,354
Toluma	14	23.00	15	7 12	15	16 40	15	17 50	Norwegian	Grace Line	417.8	54.4	29 6	Magellanes, Chile	Charleston, S. C.	Nitrates	9,702	7,176	5,219
Militis	15	1 20	15	8 15	15	16 55	15	16 55	British	Lamport & Holt	434 9	55 3	21 4	Vancouver, B. C.	Liverpool, Eng.	Metal, apples	1,165	7,594	4,836
Uganda	15	8 40	15	9 33	15	17 25	15	17 25	British	Wessel, Duval & Co	402 1	52 5	25 0	Mejillones, Chile	Wilmington, N. C	Nitrates	7,730	5,593	4,069
Oropesa	15	4 45	15	12 35	15	21 10	15	23 40	British	Pacific Steam Nav. Co	530.0	66 3	29 0	Talcahuano, Chile	Liverpool, Eng.	[25]	9,043	14,827	10,630
Radiant [1]	15	13 53	15	14 18	15	22 50	16	1 15	American	Gladstone Transp. Co.	250.0	43 0	22 0	Los Angeles, Calif.	Baltimore, Md	[26]	3,000	2,636	1,517
Queen Eleanor	15	13 50	15	14 46	15	22 40	15	22 40	British	Thos. Dunlop & Sons	400.3	52 3	25.0	Iquique, Chile	New Orleans, La.	Nitrates	7,500	5,708	4,054
Arana	15	16 50	16	5 00	16	13 20	16	22 20	British	Pacific Steam Nav. Co	303 4	43.0	14 7	Callao, Peru	New York, N. Y.	General	793	2,851	1,776
Altodi Mendi.	15	21.00	16	5 27	16	13.15	16	13.15	Spanish	Sota & Aznar	400.0	53.0	26.0	Tocopilla, Chile	Azores	Nitrates	8,200	6,009	4,051
Standard Arrow [1]	15	19 20	16	6 33	16	14 23	16	14 23	American	Standard Transp. Co.	467 6	62.7	28 0	Long Beach, Cal.	Providence, R. I.	[23]	12,427	9,698	6,783
Laurel	15	21.30	16	7 20	16	15.15	16	15.15	American	States S. S. Co.	410.0	54.2	26.0	Everett, Wash.	Wilmington, Del.	[27]	6,989	6,756	4,874
Cities Service Empire [1]	15	22 20	16	7 38	16	16 50	16	15.60	American	Cities Service Corp.	464.7	60 2	27.4	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	10,737	8,561	5,997
Sutherland	16	3 00	16	8 16	16	18 55	16	17 55	American	Nelson S. S. Co.	380.0	53.2	24.2	Port Angeles, Wash	Baltimore, Md.	Lumber, general	6,699	5,654	4,123
Forresbank [21]	16	4 15	16	9 05	16	18 30	16	19 40	British	Andrew Weir & Co.	419.6	53 9	26.0	Vancouver, B. C.	Rotterdam, Holland	Lumber, wheat	8,094	....	....
Dakotan	16	7.30	16	10 04	16	19 09	16	19.00	American	Amer-Hawaiian Line	407.7	53 7	28.0	Seattle, Wash.	Boston, Mass.	General	9,095	7,156	5,094
Willpolo	16	8.40	16	11.16	16	19.55	16	19 55	American	Williams S. S. Line	386.8	52.2	24.9	Bellingham, Wash.	New York, N. Y.	Lumber, general	6,770	5,680	4,080

[1] Tanker. [21] Motor ship. [22] Cruiser. [23] Distilled kerosene. [24] Coffee, wood, and general. [25] Copper, sugar, and nitrates. [26] Gasoline and crude oil. [27] Lumber and paper pulp.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Santa Eulalia	16	9.30	16	11 22	16	21 15	16	23 3	American	American-Cuban Lines	251.0	43 6	22.6	Kahului, T. H.	New York, N. Y.	Sugar	3,125	2,823	1,730
Sun [28]	16	13.00	16	14.14	16	22 0	16	1.0	American	Sun Oil Co	481.6	66 0	28.6	San Francisco, Cal.	Chester, Pa	Gasoline	13,451	9,621	6,424
Liberator	16	8 15	16	14 58	16	21 2	16	23 2	American	Tampa Interocean Co.	440 0	56 0	28 0	Manila, P. I.	New York, N. Y.	Sugar, oil	9,369	8,204	6,219

[28] Motor ship. All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
March 10	Columbus	North German Lloyd	New York via wayports.
March 10	No. 9717 [29]	Pan-American Airways	Managua via wayports.
March 11	Suriname	United Fruit Co	Puerto Colombia, Col.
March 11	Cleveland [30]	U. S. Navy	Highseas.
March 12	Simon Bolivar	Royal Netherlands S. S. Co.	Amsterdam via wayports
March 12	Linda S. [31]	A. L. Surgeon	Colon, R. P.
March 13	Iriona	United Fruit Co	New Orleans, La.
March 13	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
March 13	Cavina	Elders & Fyffes Line	Avonmouth via W. Indies.
March 13	Zacapa	United Fruit Co	New York via Kingston
March 14	Anachucana [32]	United Fruit Co	Colon, R. P.
March 14	Inapaquina [32]	United Fruit Co	Colon, R. P.
March 14	Uiua	United Fruit Co	New York via wayports.
March 15	Suriname	United Fruit Co	Boca s. R. P.
March 15	Simon Bolivar	Royal Netherlands S. S. Co	Port Limon, C. R.
March 15	Atlantida	Standard Fruit & S. S. Co.	New Orleans via waypor's.
March 15	Volendam	Holland-American Line	New York via Kingston.
March 15	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
March 15	Port Antonio	United Fruit Co	Port Limon, C. R.
March 16	Inapaquina [32]	United Fruit Co	Colon, R. P.
March 16	William M. [33]	G. I. Bryan	Colon, R. P.
March 16	Anachucana [32]	United Fruit Co	Colon, R. P.
March 16	Novian	Leyland Line	Liverpool via wayports.
March 16	Camden	United Fruit Co	Curacao, D. W. I.
March 16	Parismina	United Fruit Co	New Orleans via Habana.

* DEPARTURES.

Date.	Vessel.	Line.	For—
March 10	California	Cunard Line	New York via wayports.
March 10	No. 9726 [29]	Pan-American Airways	Port Limon, C. R.
March 11	Manuel Arnus	Spanish Steamship Line	Barcelona via wayports.
March 11	Cartago	United Fruit Co	New Orleans via wayports.
March 11	Macabi	United Fruit Co	Puerto Colombia, Col.
March 11	Brion	Royal Netherlands S. S. Co	Curacao, D. W. I.
March 11	San Pablo	United Fruit Co	Tela.
March 11	Suriname	United Fruit Co	Bocas, R. P.
March 12	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
March 12	Columbus	North German Lloyd	New York via wayports.
March 12	Linda S. [31]	A. L. Surgeon	Bluefields, Nicaragua.
March 13	Simon Bolivar	Royal Netherlands S. S. Co	Port Limon, C. R.
March 13	Cavina	Elders & Fyffes Line	Avonmouth via Kingston.
March 14	Inapaquina [32]	United Fruit Co	Colon, R. P.
March 14	Anachucana [32]	United Fruit Co	Colon, R. P.
March 14	Iriona	United Fruit Co	Port Limon via Bocas.
March 14	Zacapa	United Fruit Co	New York via wayports.
March 15	Suriname	United Fruit Co	New Orelans.
March 15	Uiua	United Fruit Co	New York via wayports.
March 15	Port Antonio	United Fruit Co	Puerto Castilla.
March 16	Inapaquina [32]	United Fruit Co	Colon, R. P.
March 16	William M. [33]	G. I. Bryan	Bluefields, Nicaragua.
March 16	Volendam	Holland-American Line	New York via wayports.
March 16	Atlantida	Standard Fruit & S. S. Co	New Orleans via wayports.
March 16	Anachucana [32]	United Fruit Co	Colon, R. P.

[29] Airplane mail carrier. [30] Cruiser. [31] Motor schooner. [32] Motor boat. [33] Schooner. PORT OF BALBOA.

March 11	San Luis [34]	Chiriqui Land Co	Pto. Armuelles, R. P.	March 11	San Luis [34]	Chiriqui Land Co	Pto. Armuelles, R. P.
March 14	Ideal II [34]	Hans Elliot	Sambu River, R. P.	March 14	Ideal II [34]	Hans Elliot	Panama Bay, R. P.
March 14	Dos Hermanos [34]	A. Valdez	Bayano River, R. P.	March 14	Dos Hermanos [34]	A. Valdez	Panama Bay, R. P.

[34] Motor schooner.

* Other than ships passing through the Canal.

Cargo Through Canal During February, 1929.

On pages 478 and 479 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in February, 1929. This cargo, segregated according to direction, as compared with February, 1928, and the differences, is shown in the following tabulation:

	February, 1929.	February, 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Atlantic to Pacific	864,344	713,293	+151,051
Pacific to Atlantic	1,686,154	1,947,132	−260,978
Total	2,550,498	2,660,425	−109,927

As will be noted above, cargo tonnage from the Atlantic to the Pacific increased 151,051 tons over that passing through in that direction in February, 1928, while that in the opposite direction decreased 260,978 tons, showing a decrease in both directions under the corresponding month a year ago of 109,927 tons. The decrease in cargo from the Pacific was attributed to a great extent to lessened wheat shipments from North America, there having been over 170,000 tons less of this commodity than the amount passing through in February, 1928. The increase in cargo from the Atlantic to the Pacific represents a general expansion over practically all routes of trade.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-one per cent of the cargo moving from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 29.6 per cent in Europe. Cargo originating in the United States was 85,177 tons, or 19.3 per cent greater than the amount coming from that area in February, 1928, although the proportion of the whole was slightly greater in February, 1928. Cargo from Europe increased 53,605 tons, or 26 per cent over that passing through in this direction in February, 1928, while the proportion of the total cargo was also slightly greater in February, 1929.

Destination.—Almost 39 per cent of the Pacific-bound cargo was destined to the United States; 18.6 per cent to Asia; 17.5 per cent to South America; and 17.1 per cent to Australasia. Tonnage to all these regions with the exception of Asia, showed actual increases in the amounts of 53,430 tons, or 18.9 per cent to the United States; 48,570 tons, or 47.3 per cent to South America; and 41,665 tons, or 39 per cent to Australasia, over February of last year. The percentage of the total to these areas was slightly greater last month than in February, 1928, with the exception of that to the United States. The amount of cargo destined to Asia was approximately the same in February, 1929, as in February, 1928, and the percentage of the whole was greater in February, 1928.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction, 43.4 per cent originated on the west coast of the United States; 29.5 per cent in South America; 17.1 per cent in Canada; 5.6 per cent in Australasia; and 3.5 per cent in Asia. Cargo from the United States showed an actual decrease of 95,137 tons, or 11.5 per cent; that from South America, a

decrease of 30,831 tons, or 5.8 per cent, and that from Canada a decrease of 147,367 tons, or 33.9 per cent, under the tonnage from these regions in February, 1928. The proportion of the total cargo coming from the United States and South America in February, 1929, was approximately the same as in February, 1928, while that from Canada last month was only 17.1 per cent of the total as compared with 22.4 per cent in February, 1928. Tonnage from Australasia and Asia showed relative as well as actual increases of 6,093 tons, or 6.9 per cent, and 13,160 tons, or 28.8 per cent, respectively, over February, 1928.

Destination.—Segregated according to destination, 53.8 per cent of the cargo in this direction went to ports of the United States, and 42.1 per cent to Europe. Tonnage to the United States decreased 88,678 tons, or 8.8 per cent, while that to Europe decreased 106,723 tons, or 13.1 per cent under the cargo destined to these areas passing through in February, 1928. The percentage of the total cargo passing through to the United States in February, 1928, was 51.2 per cent, and to Europe 41.9 per cent.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify 85 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 15 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Pacific-bound commodities which aggregated more than 10,000 tons for February, 1928, or February, 1927, are listed in the following tabulation, showing differences:

Commodity.	February 1929.	February 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Ammonia	7,178	11,912	−4,734
Asphalt	7,115	13,143	−6,028
Automobiles	17,239	6,081	+11,158
Cement	50,890	26,814	+24,076
Coal and coke	38,886	21,950	+16,936
Cotton	17,469	17,522	−53
Flour	14,390	2,578	+11,812
Manufactured goods:			
Iron and steel	200,125	173,983	+26,142
Machinery	12,918	9,558	+3,360
Railroad material	24,503	27,662	−3,159
Textiles	11,567	5,023	+6,544
Miscellaneous	13,385	4,655	+8,730
Metals, various	13,438	15,279	−1,841
Oils, mineral	84,175	62,555	+21,620
Paper	18,814	12,868	+5,946
Phosphates	14,169	14,950	−781
Slag	25,698	22,260	+3,438
Sulphur	32,500	6,728	+25,772

The above 18 commodity groups comprise about 70 per cent of the cargo from the Atlantic to the Pacific during February, 1928. Twelve of the items showed increases while 6 showed decreases. The heaviest increases were iron and steel, sulphur, mineral oils, cement, and coal and coke. The majority of the decreases were comparatively slight.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 98 per cent of all cargo moving from the Pacific to the Atlantic during the month of February, 1929. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	February, 1929.	February, 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Barley	28,070	8,082	+19,988
Beans	8,283	14,454	−6,171
Canned goods (fish, fruit, vegetables, etc.)	65,829	64,976	+853
Coffee	20,737	18,422	+2,315
Cold storage (food products) [1]	44,782	49,940	−5,158
Copra	11,444	3,200	+8,244
Fruit, dried	17,353	26,300	−8,947
Fruit, fresh	18,058	13,378	+4,680
Lumber	202,002	274,878	−72,876
Metals, various	54,295	51,168	+3,127
Nitrates	250,588	276,509	−25,921
Oils, mineral	369,388	369,212	+176
Ores (principally iron)	136,463	142,815	−6,352
Sugar	68,854	55,147	+13,707
Wheat	261,273	432,690	−171,417
Wool	20,034	23,390	−3,356

[1] Does not include fresh fruit.

The above 16 commodity groups comprise over 93 per cent of the cargo from the Pacific to the Atlantic during February, 1929. Wheat and lumber decreased heavily under February, 1928, while barley and sugar showed the heaviest increases.

(Continued on next page.)

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective March 11, 1929:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.22
Brass, sheet, average	Lb.	.35
Bronze, Tobin, average	Lb.	.21
Gasoline, motor grade	Gal.	.14½
Metal, yellow	Lb.	.24
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.17
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals	1.50
Oil, ammonia, cylinder	Gal.	.28
Oil, burning, Colza	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135	Gal.	.43
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250	Gal.	.58
Oil, engine, gas, extra heavy, in drums, Gulftriton No. 2250	Gal.	.50
Oil, kerosene, in drums	Gal.	.11
Oil, marine engine	Gal.	.54
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc oxide, dry	Lb.	.10
Paint, zinc oxide, in oil	Lb.	.13
Grease, gear, chain and wire rope, lubricating	Lb.	.05
Grease, yellow, cup, No. 3	Lb.	.08
Grease, yellow, cup, No. 5	Lb.	.09
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.15
Waste, cotton, white	Lb.	.16

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, February, 1929.—Continued from page 477.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.					
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America.[1]	Balboa, C. Z.[2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	Australia.	New Zealand.	Australasia.[2]	Total, Australasia.	Grand totals.	Per cent of total cargo.
North America:																								
United States—																								
North Atlantic ports	13,769	3,294	836	5,682	6,644	30,236	199,513	1,233	2,192	....	11	5,746	209,095	25,918	25,650	8,392	30,289	90,279	33,699	5,212	7,133	46,044	375,654	43.5
South Atlantic ports	....	....	....	....	....	....	7,153	....	....	....	....	....	7,163	2,189	25	....	575	2,789	....	....	....	....	9,952	1.2
Gulf ports	1,897	161	42	614	2,623	5,337	51,898	37	....	....	....	84	51,98[illegible]	30,040	19,720	3,157	6,079	58,996	7,098	7,425	10,052	24,575	140,897	16.3
Totals, U. S.	15,657	3,455	928	6,296	9,267	35,573	258,944	1,270	2,192	....	11	5,830	268,247	58,177	45,395	11,549	36,943	152,064	40,797	12,637	17,185	70,619	526,503	61.0
Cristobal, C. Z.[2]	398	2,509	1,300	816	1,085	6,106	3,313	1	12,131	....	....	....	15,445	....	....	....	....	....	....	....	50	50	21,604	2.5
East coast of Canada	....	....	....	....	....	....	1,211	17,79[illegible]	....	....	....	....	18,630	....	....	....	....	....	4,130	4,308	....	8,438	27,068	3.1
West Indies	16,269	....	....	....	17	16,286	2,618	....	....	....	....	....	2,618	....	....	....	....	....	....	....	....	....	18,904	2.2
E. Coast Cen. Amer.	....	....	....	....	....	....	2,21[illegible]	....	....	....	....	....	2,21[illegible]	....	....	....	....	....	....	....	5,807	5,807	8,047	0.9
Totals, N. Amer.	32,325	5,964	2,228	7,112	10,369	57,968	265,346	18,079	14,32[illegible]	....	11	5,830	307,18[illegible]	58,177	45,395	11,549	36,943	152,064	44,927	16,945	23,042	84,914	602,126	69.7
Europe:																								
British Isles	16,90[illegible]	122	318	6,08[illegible]	2,347	25,78[illegible]	8,05[illegible]	2,845	....	....	....	5,345	16,240	8,450	....	....	....	8,450	....	29,078	6,500	35,578	86,049	9.9
Belgium	6,952	2,02[illegible]	48	1,79[illegible]	80[illegible]	12,41[illegible]	21,772	5,117	1,510	....	453	....	31,85[illegible]	....	....	....	....	....	....	21,995	....	21,995	66,023	7.6
Denmark	2[illegible]	....	....	....	2[illegible]	....	15	....	....	....	....	....	15	....	....	....	....	....	....	....	....	....	41	....
France	3,77[illegible]	912	19[illegible]	48[illegible]	5,63[illegible]	11,044	2,13[illegible]	1,011	9[illegible]	....	....	....	3,21[illegible]	....	....	....	....	....	....	....	2,630	2,630	16,920	2.0
Germany	2,58[illegible]	301	63[illegible]	1,13[illegible]	4,11[illegible]	9,11[illegible]	7,85[illegible]	49[illegible]	2,547	....	756	....	11,575	....	....	....	....	....	....	....	....	....	20,692	2.4
Holland	2[illegible]	54	1[illegible]	3,42[illegible]	62[illegible]	4,36[illegible]	2,15[illegible]	1,91[illegible]	....	....	....	....	4,09[illegible]	....	....	....	....	....	....	....	....	....	8,464	1.0
Italy	5,22[illegible]	....	....	....	....	5,22[illegible]	55[illegible]	68[illegible]	....	....	....	....	1,24[illegible]	....	....	....	....	....	....	....	....	....	6,466	0.7
Norway and Sweden	4,65[illegible]	....	9[illegible]	1,97[illegible]	1,13[illegible]	7,85[illegible]	7,08[illegible]	162	4,497	....	1,981	....	13,728	....	....	....	....	....	2,598	....	....	2,598	24,188	2.8
Spain and Portugal	1,01[illegible]	....	....	8[illegible]	....	18[illegible]	11[illegible]	....	....	....	....	....	145	....	....	....	....	....	....	....	....	....	329	....
Europe [illegible]	1,940	....	....	944	13,934	16,78[illegible]	10,127	49[illegible]	....	....	....	....	10,525	....	....	....	....	....	....	....	....	....	27,313	3.2
Totals, Europe	42,428	3,414	1,731	15,941	30,027	92,541	62,81[illegible]	12,617	8,652	....	3,190	5,345	92,693	8,450	....	....	....	8,450	2,598	51,073	9,130	62,801	256,485	29.6
E. coast of S. America	....	56[illegible]	....	....	....	56[illegible]	4,688	8[illegible]	....	....	....	12	4,780	....	381	12	....	393	....	....	....	....	5,733	0.7
Grand totals	74,753	9,938	3,959	23,053	39,365	151,069	335,93[illegible]	31,387	22,975	....	3,201	11,187	404,653	66,627	45,776	11,561	36,943	160,907	47,525	68,018	32,172	147,715	864,344	100.0
Per cent of total cargo:																								
February, 1929	8.6	1.2	0.5	2.7	4.5	17.5	38.8	3.6	2.7	....	0.4	1.3	46.8	7.7	5.3	1.3	4.3	18.6	5.5	7.9	3.7	17.1	100.0	.....
February, 1928	4.3	0.8	0.3	1.7	7.2	14.3	39.6	4.2	2.0	1.3	0.1	1.1	48.3	11.2	4.4	0.9	6.0	22.5	4.8	9.2	0.9	14.9	100.0	.....
February, 1927	3.8	1.2	.....	0.9	5.7	11.6	37.7	1.8	2.0	1.9	0.1	0.4	43.9	13.1	7.0	0.7	4.0	24.8	10.3	8.1	1.3	19.7	100.0	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, February, 1929.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.											East coast of South America.	Egypt.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Central America.	Cristobal, C. Z. [2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe. [1]	Total, Europe.				
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																				
South America:																								
Chile	151,211	32,839	62,093	246,133	.....	696	.....	368	247,168	15,919	1,694	.....	1,984	3,166	89	2,835	.....	103	123,385	149,166	10	8,160	404,504	24.0
Colombia	1,000	.....	.....	1,000	.....	.....	.....	3,268	4,268	395	.....	.....	.....	15	.....	.....	.....	.....	.....	410	.....	.....	4,679	0.3
Ecuador	11,937	.....	.....	11,937	.....	.....	.....	1,582	13,520	26	.....	.....	65	84	.....	.....	.....	.....	.....	175	20	.....	13,715	0.8
Peru	19,902	.....	.....	19,902	27,000	.....	.....	2,166	49,068	12,607	529	.....	4	218	4,971	.....	.....	.....	5,031	23,360	.....	.....	72,428	4.3
West coast of South America [1]	142	.....	.....	142	.....	77	.....	324	543	54	.....	.....	56	381	.....	.....	.....	.....	471	962	.....	.....	1,505	0.1
Totals, South America	184,193	32,839	62,093	279,121	27,000	773	.....	7,704	314,568	29,001	2,223	.....	2,109	3,864	5,051	2,835	.....	103	128,887	174,073	30	8,160	496,831	29.5
North America:																								
West coast of Canada	18,124	.....	965	19,089	6,035	1,837	7	.....	26,935	111,929	18,174	12,940	6,342	38,535	7,502	.....	2,096	7,700	55,353	260,562	990	.....	288,487	17.1
West coast Cen. America	132	.....	.....	132	.....	59	230	7,342	7,763	1,487	.....	.....	151	986	2,837	.....	705	.....	1,808	8,060	.....	.....	15,793	0.9
West coast United States	199,162	10,710	29,387	239,259	.....	2,838	2,420	3,817	248,401	105,166	1,394	6,410	9,990	16,017	5,992	.....	2,568	7,711	27,502	182,750	144	.....	731,295	43.4
Hawaii	.....	.....	412	412	.....	.....	.....	.....	412	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	412	.....
Totals, North America	217,419	10,710	30,764	258,893	6,095	4,774	2,657	11,173	283,481	218,569	19,568	19,359	16,483	55,538	16,331	.....	5,369	15,411	84,753	451,372	1,134	.....	1,035,987	61.4
Asia:																								
China	4,074	.....	115	4,189	.....	.....	106	.....	4,295	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,295	0.3
Japan	936	.....	.....	936	.....	.....	30	.....	966	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	966	.....
Philippines	21,770	.....	31,700	53,470	.....	.....	.....	.....	53,470	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53,470	3.2
Far East [1]	.....	.....	.....	.....	.....	.....	65	.....	65	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65	.....
Totals, Asia	26,780	.....	31,815	58,595	.....	.....	201	.....	58,796	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	58,796	3.5
Australasia:																								
Australia	6,730	.....	.....	6,730	.....	.....	.....	.....	6,730	7,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	7,000	.....	.....	13,730	0.8
New Zealand	3,274	.....	.....	3,274	18	.....	.....	.....	3,292	72,527	.....	.....	.....	.....	.....	.....	.....	.....	.....	72,527	.....	.....	75,819	4.5
Australasia [1]	1,266	.....	.....	1,266	.....	.....	.....	.....	1,266	.....	.....	.....	3,725	.....	.....	.....	.....	.....	.....	3,725	.....	.....	4,991	0.3
Totals, Australasia	11,270	.....	.....	11,270	18	.....	.....	.....	11,288	79,527	.....	.....	3,725	.....	.....	.....	.....	.....	.....	83,252	.....	.....	94,540	5.6
Grand Totals	739,667	43,549	124,669	907,876	33,023	5,517	2,834	18,885	968,133	327,097	21,791	19,350	22,317	59,402	21,382	2,835	5,369	15,514	213,640	708,697	1,164	8,160	1,686,154	100.0
Per cent of total cargo:																								
February, 1929	43.8	2.6	7.4	53.8	1.9	0.3	0.2	1.1	57.3	19.4	1.3	1.2	1.3	3.5	1.3	0.2	0.3	0.9	12.7	42.1	0.1	0.5	100.0	...
February, 1928	41.4	5.5	4.3	51.2	2.7	0.5	0.5	2.3	57.2	17.3	2.7	0.1	1.4	5.6	4.1	1.8	0.8	.....	8.1	41.9	.....	0.9	100.0	.....
February, 1927	51.8	1.2	3.5	56.5	2.3	1.9	0.1	4.6	65.4	12.2	1.9	0.3	0.4	2.1	1.4	1.0	1.0	0.5	12.4	33.8	0.8	.....	100.0	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Supplement No. 11—Tariff No. 9.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., *March 1, 1929.*

ITEM 17.—MEDICAL AND HOSPITAL TREATMENT.

(Effective April 1, 1929.)

Change to read as follows:

1. Ward treatment for seamen, $3.00 per day. Operations, 25 per cent of scheduled price, that is, from $1.00 to $125.00. X-ray examinations, $1.50 to $15.00. Office consultation at hospital or dispensary, $2.00; surgical dressings without consultation, $1.00.

2. Ward treatment for passengers and others, $5.00 and $6.00 per day; private room, $7.50 and $9.00 per day. Charges for operations, X-ray examinations and other services are at scheduled prices and are in accordance with charges for the same services in other hospitals. Office consultation at hospital or dispensary, $3.00; surgical dressings without consultation, $1.50.

3. When a private bathroom, used by one patient only, is furnished, a charge of $2.00 per day will be made; when used by two patients occupying rooms connecting with common bathroom, $1.00 per day. Telephone service in private rooms, when furnished, will be charged at the rate of $1.00 per week or fraction thereof.

4. Visit of physician to vessels alongside dock, $5.00; to vessels in harbor at anchor or transiting the Canal, $10.00; to vessels at outer anchorage, Balboa, $25.00; except for visits to two or more in the same family, or two or more members of crew, in which case full price will be charged for first, and $2.50 for each additional patient. Launch service for such visits, after the first hour, will be charged for at the rate of $3.00 for each half hour or fraction thereof. When a physician has to remain on ship, while in transit through Miraflores Lake, due to inability to complete his services while at Miraflores or Pedro Miguel Locks, a charge of $7.50 will be made in addition to the regular charge for the visit of a physician to vessels transiting the Canal.

H. BURGESS,
Governor, The Panama Canal,
President, Panama Railroad Company.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending March 16, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged.	Laded.
				Tons.	*Tons.*
Ancon	Panama R. R. S. S. Line		March 3		2,072
Cali	North German Lloyd		March 3		335
Salvador	Pacific Steam Nav. Co.		March 3		1,072½
Boskoop	Royal Neth. S. S. Co.		March 3		359
San Jose	United Fruit Co.	March 3	March 3	¾	71
Witram	North German Lloyd	March 3	March 3	(1)	130
Breda	Royal Neth. S. S. Co.	March 3	March 3	130	½
Heredia	United Fruit Co		March 4		14½
Santa Cecelia	Grace Line	March 3	March 4	174	443
I. C. White	Huasteca Petroleum Co.	March 3	March 4	11,136	(2)
Itauri	Hamburg-American Line	March 3	March 4	(1)	157
Jamaica	Pacific Steam Nav. Co.	March 3		905	
Caldas	National Navigation Co.	March 3	March 7	293	252
Padilla	Colombian S. S. Co.	March 3	March 8	(1)	2,628
Ulysses	Royal Neth. S. S. Co.	March 3	March 8	23	1,337
Ebro	Pacific Steam Nav. Co.	March 4	March 5	4	5½
Mercian	Leyland S. S. Line	March 4	March 6	816	(2)
Uribe	Estrada G. Hermanos	March 4	March 9	(1)	1,031
Wanks	Standard Fruit & S. S. Co.		March 6		6
Kinderdijk	Holland-American Line	March 5	March 5	(1)	133
Venezuela	Panama Mail S. S. Co	March 5	March 6	1,437	285
Guadeloupe	French S. S. Line	March 5	March 6	134	204
Balboa	Johnson S. S. Line	March 5	March 6	(1)	412
Margaret Johnson	Johnson S. S. Line	March 5	March 6	201	(2)
Colombia	Panama Mail S. S. Co.	March 5	March 6	295	260

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z.—Continued.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Paraguay	Hamburg-American Line	March 6	March 6	155	49
Modavia	Donaldson Bros., Ltd.	March 6	March 6	(1)	315
Limon	United Fruit Co	March 6	March 7	1,211	152
Coquina	Panama Mail S. S. Co.	March 6		1,082	
Suriname	United Fruit Co.	March 6	March 7	1,117	66
Narenta	Pacific Steam Nav. Co.	March 6	March 7	(1)	378
Santa Elisa	Grace Line	March 6	March 7	(1)	1
Havana Maru	Osaka Shosen Kaisha	March 6	March 7	69	(2)
La Marseillaise	French Line	March 6	March 8	196	70
Manizales	North German Lloyd	March 6		567	
Oroya	Pacific Steam Nav. Co.	March 7	March 8	64	212
Theodore Roosevelt	Norway Pacific Line	March 7	March 8	(1)	476
San Francisco	Hamburg-American Line	March 7	March 8	(1)	380
Sixaola	United Fruit Co.	March 7	March 8	805	425
Pastores	United Fruit Co.	March 7	March 8	1,456	172
Macabi	United Fruit Co.	March 7		49	
Lochmonar	Royal Mail S. P. Co.	March 8	March 9	33	321
Grunewald	Hamburg-American Line	March 8	March 9	(1)	108
Phoenicia	Hamburg-American Line	March 8	March 9	8	1,224
Amapala	Standard Fruit & S. S. Co.	March 8	March 9	267	465
Wanks	Standard Fruit & S. S. Co.	March 8		70	
Manuel Arnus	Spanish Line	March 8		244	
Coppename	United Fruit Co.	March 8	March 8	2½	160
Atlantian	Leyland S. S. Line		March 9		373
Marsodak	Nelson S. S. Line	March 9	March 9	120	(2)
Cartago	United Fruit Co.	March 9		1,102	
Poseidon	Hamburg-American Line	March 9		56	
Finn	Colombian Transp. Co.	March 9	March 9	245	(2)
San Pablo	United Fruit Co.	March 9		627	
Orduna	Pacific Steam Nav. Co.	March 9		7	
Jamaica	Pacific Steam Nav. Co.		March 10		834½
Manizales	North German Lloyd		March 10		185½
Poseidon	Hamburg-American Line		March 10		643
Limon	United Fruit Co.	March 10	March 10	2	41
Buenaventura	Panama R. R. S. S. Line	March 10	March 11	460	1
Guayaquil	Panama R. R. S. S. Line	March 10	March 11	340	394
Ucayali	Peruvian Line	March 10		2,018	
Macabi	United Fruit Co.		March 11		416
Manuel Arnus	Spanish Line		March 11		187
Cartago	United Fruit Co.		March 11		2
Port Antonio	United Fruit Co.	March 10	March 12	296	200
Suriname	United Fruit Co.	March 11	March 11	229	138
Tatsuno Maru	Nippon Yusen Kaisha	March 12	March 12	184	(2)
Linda S.	R. Feuillebois	March 12	March 12	(2)	28
Wanks	Standard Fruit S. S. Co.		March 12		8
Santos Maru	Osaka Shosen Kaisha	March 12	March 13	114	(2)
Simon Bolivar	Royal Netherlands S. S. Co.	March 12	March 13	60	(2)
Fella	Nav. Libera-Triestina	March 12	March 13	227	(2)
Cauca	National Navigation Co.	March 12	March 14	171	406¾
Cavina	Elders & Fyffes, Ltd.	March 13	March 13	(1)	388
Minnesota	French Line	March 13	March 13	522	184
Iriona	United Fruit Co.	March 13	March 14	1,020	31
Cristobal	Panama R. R. S. S. Line	March 13		3,392	
San Mateo	United Fruit Co.	March 13	March 14	1,144	130
Zacapa	United Fruit Co.	March 13	March 14	711	586
Coquina	Panama Mail S. S. Co.		March 14		1,485
Rapot	North German Lloyd	March 13	March 14	250	50
Ulua	United Fruit Co.	March 14	March 15	452	255
Baralt	Royal Netherlands S. S. Co.	March 14	March 16	455	146
City of Panama	Panama Mail S. S. Co.	March 14		2,731	
Benjamin Franklin	Fred Olsen & Co.	March 14	March 15	281	230
Erfurt	Roland Line	March 14	March 16	76	2,000
Pacific Exporter	Furness, Withy & Co.	March 14	March 15	(1)	319
Santa Cruz	Grace Line	March 14	March 15	(1)	421
Suriname	United Fruit Co.	March 15	March 15	85	352
Atlantida	Standard Fruit S. S. Co.	March 15	March 16	400	548
Eemdijk	Holland-American Line	March 15		716	
Simon Bolivar	Royal Netherlands S. S. Co.	March 15	March 16	(1)	960
Oropesa	Pacific Steam Nav. Co.	March 15	March 15	14	(2)
Novian	Leyland S. S. Line	March 16		490	
Arana	Pacific Steam Nav. Co.	March 16	March 16	273	13
Heinrich Arp	Colombian Maritime Co.	March 16	March 16	2	(2)
Wanks	Standard Fruit S. S. Co.	March 16		125	
Camden	United Fruit Co.	March 16		9,174	
Parismina	United Fruit Co.	March 16		943	
William M.	R. Feuillebois	March 16	March 16	(2)	28½

[1] No cargo discharged.

[2] No cargo laded.

Supplement No. 12—Tariff No. 9.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., *March 1, 1929.*

ITEM 34.—STEVEDORING AND TRANSFERRING CARGO.
(Effective April 1, 1929.)

1. Stevedoring—Rates amended as follows:

		Cargo.	
		Ex.	Per.
(*a*)	General cargo	$0.20	$0.25
(*b*)	Cotton, wool, kapok, hemp, bark, leather, hides, hay, straw, and similar commodities per ton of 2,000 lbs. If offered on measurement basis, rates will be the general cargo rate.	.40	.50
(*c*)	Boilers, locomotive parts, machinery, railroad cars, etc., scrap machinery, and scrap boiler, etc., and other heavy weights of over 2 tons, per ton	.35	.40
(*d*)	Structural steel, iron pipe, etc., over 35 feet long, per ton	.35	.40
(*e*)	Loose brick, conduit, sewer pipe, terra cotta, and tile, per ton	.35	.40
(*f*)	Loose scrap iron of irregular shape, pieces not over 2 tons, per ton	.40	.50
(*g*)	Lumber, switch and cross ties, per M. ft. BM	.70	.85
(*h*)	Rough timber and logs, per ton	.40	.50
(*i*)	Piling, per linear foot	.01	.00¾
(*j*)	Horses, mules and donkeys, per head	.70	.85
(*k*)	Cattle, per head	.50	.60
(*l*)	Calves, goats, dogs, hogs, and sheep, per head	.35	.40
(*m*)	Live stock, other than above indicated, when crated, per ton	.70	.85
(*n*)	Mail, baggage, and specie, per ton	1.00	1.25
(*o*)	Explosives, per ton	2.00	2.00
(*p*)	Nitrates, per ton	.35	.40
(*q*)	Bananas, per ton	.45	.45

H. BURGESS,
Governor, The Panama Canal,
President, Panama Railroad Company.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending March 16, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged.	Laded.
				Tons.	*Tons.*
Cambrai	U. S. Army	March 1	March 4	870	589
Salvador	Pacific Steam. Nav. Co.	March 3	March 3	.....	17
Montebello	Union Oil Co.	March 3	March 5	11,000	.....
Boskoop	Royal Neth. S. S. Co.	March 3	March 4	386	.....
Venezuela	Panama Mail S. S. Co.	March 4	March 5	254	45
Coquina	Pilsbury & Curtis	March 4	March 5	44	.....
Colombia	Panama Mail S. S. Co.	March 6	March 7	28	62
Virginia	Panama-Pacific Line	March 8	March 8	.....	190
President Wilson	Dollar S. S. Line	March 8	March 9	.....	3
Tatsuno Maru	Nippon Yusen Kaisha	March 11	March 11	130	.....
Chateau Thierry	U. S. Army	March 11	March 12	999	52
City of Panama	Panama Mail S. S. Co.	March 14	March 14	5	.....
Benjamin Franklin	Fred Olsen & Co.	March 15	March 16	671	.....
St. Mihiel	U. S. Army	March 16	March 16	34	4

Density of Water in Balboa and Cristobal Harbors.

Place.	Weight of sea water in ounces per cubic ft.			Rainy season. Average temperature. Degrees F.
	Average.	Maximum.	Minimum.	
Cristobal (between docks 8 and 9)	1018	1020	1013	84.0
Balboa (dock 18)	1011	1021	1005	83.0

(NOTE—The above is based on two months observations at Cristobal, and Balboa. Average taken at 12-foot depth. Minimum occurred after heavy rain at 3-foot depth at Cristobal and 12-foot depth at Balboa. The weight of a cubic foot of fresh water at 85° F. is 995 ounces.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2	$8.00	$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds	11.00	14.00

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Notaries Public in the Canal Zone.

The following is a list of notaries public commissioned in the Canal Zone as of November 23, 1928. The list gives, by towns, the name, where stationed, and the date of expiration of commission:

ANCON.

Bowen, Vollie S., Land Office, February 27, 1930.
Boyd, Oscar S., Municipal Division, July 30, 1931.
French, A. W., Gorgas Hospital, May 14, 1929.
Latimer, J. G., Ancon Laundry, April 30, 1930.
McGahhey, J. T., Clubhouse, August 12, 1930.
Ohlson, Elmer F., Gorgas Hospital, December 3, 1930.
Russell, C. V., Gorgas Hospital, April 29, 1930.
Shaeffer, L. E., Office J. O. Collins, April 6, 1929.
Sheibley, F. H., District Court, October 27, 1929.
Walker, J. J., District Court, November 22, 1931.

BALBOA.

Hyde, W. H., Port Captain's Office, March 6, 1930.
Kalar, J. D., Port Captain's Office, April 13, 1929.
Kelley, Thomas H., Mechanical Division, August 18, 1930.
Lefever, John E., Fort Amador, February 28, 1931.
Prager, J. F., Balboa storehouse, December 13, 1929.
Smith, Walter R., Balboa storehouse, September 4, 1931.
Stillwell, J. L., Fort Amador, April 20, 1931.

BALBOA HEIGHTS.

Attaway, E. F., Administration Building, room 343, October 28, 1930.
Boggs, W. B., Administration Building, room 316, August 4, 1931.
Buehler, G. H., Administration Building, room 205, August 17, 1931.
Fenton, John A., Administration Building, room 203, July 28, 1930.
Illwitzer, P. G., Administration Building, room 270, October 12, 1929.
Schecker, C. A., Administration Building, room 244, January 19, 1930.
Sims, Walter H., Quarry Heights, December 1, 1930.
Taylor, R. G., Administration Building, room 318, April 30, 1930.
Ungar, J., Administration Building, room 301, February 2, 1929.
Wang, Frank H., Administration Building, room 305, April 29, 1929.

COROZAL.

Grimm, G. L., Corozal Hospital, October 6, 1929.
Johnson, Mrs. Anna O., Panama Ordnance Depot, February 26, 1930.

CRISTOBAL.

Atwood, H. E., Commissary Division, April 8, 1930.
Campbell, J. S., District Court, January 28, 1929.
Clarke, V. J., Commissary Division, January 14, 1929.
Cotton, Charles, Coaling Plant, March 20, 1929.
Daly, E. J., United Fruit Co., May 26, 1929.
Flood, Arthur, Customs office, November 15, 1931.
Hargy, F. F., Port Captain's office, May 28, 1930.
MacSparran, E. S., Receiving & Forwarding Agency, December 1, 1930.
Murray, P. E., Magistrate, October 13, 1929.
Scarborough, W. W., clubhouse, January 21, 1930.
Slocum, E. L., Chase National Bank, August 10, 1929.
Walsh, M. H., Customs Office, August 5, 1929.
Ellis, Edward E., Coaling Plant, May 24, 1930.

GATUN.

P. L. Malone, Railroad Station, November 23, 1931.

PARAISO.

Holzapfel, A. F., Dredging Division, August 10, 1929.

PEDRO MIGUEL.

Norris, R. N., Municipal Division, August 11, 1930.
Rader, T. C., Pacific Locks, January 21, 1930.
Wright, A. M., Dredging Division, January 21, 1930.
Cauthers, R. A., Municipal Division, June 16, 1930.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., March 27, 1929. No. 34.

Notices to Mariners.

Gas and Whistling Buoy Established—Caribbean Sea—Central America—East Coast of Panama.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *February 27, 1929.*

No. 515.

On February 26, 1929, there was established a combination gas and whistling buoy, in 156 feet of water, on the prolongation of the axis of the main entrance of the Panama Canal 6.2 miles from Cristobal Harbor, East Breakwater Light bearing 178° 15′, on the following position:

Latitude 9° 29′ 34″ north.
Longitude 79° 55′ 18″ west.

This buoy is surmounted by a pyramidal lattice work steel structure 16½ feet high, supporting a 375 mm. lens lantern, under which is located an 18-inch whistle operated by the action of the sea.

Characteristics: Flashing white, 1 second light, 4 seconds dark.
Color of buoy: Black and white vertical stripes.
Visibility: Eight miles.

A first class spar buoy, similar in color, has been placed near the gas and whistling buoy as a marker.

H. BURGESS,
Governor.

Colombia—Buenaventura—Explosive Anchorage.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *March 22, 1929.*

No. 523.

The following cablegram was received by the Captain of the Port of Cristobal from the Captain of the Port of Buenaventura, dated March 22, 1929:

All vessels carrying explosives are directed to anchor 6 miles below the town of Buenaventura off Bazan Point and await pilot from Saldado Point.

(Signed) ACTING CAPTAIN OF THE PORT,
BUENAVENTURA, COLOMBIA.

H. BURGESS,
Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *March 26, 1929.*

No. 524.

The following is quoted from Notice to Mariners, Washington, D. C., March 16, 1929:

1. *Central America, Costa Rica, Nicoya Gulf, Puntarenas Light Discontinued.*—The Commanding Officer of the U. S. S. *Holland* reports under date of March 7, 1929, that the fixed white light formerly exhibited at Puntarenas has been discontinued.

A new light will be exhibited from the new pier now under contruction when this is completed.

Approximate position: 9° 58′ 23″ N., 84° 49′ 50″ W.

2. *Central America, West Coast, Gulf of Fonseca, La Union Approach, Colima Rock, Buoy Established.*—The master of the American steamer *Saramacca* reports that a white can buoy has been established to mark Colima Rock in the entrance channel to La Union.

Approximate position: 13° 17′ 45″ N., 87° 46′ 43″ W.

3. *Central America, West Coast, Salvador, Amapala Point Light Reported Extinguished.*—The master of the American steamer *Saramacca* reports that Amapala Point Light was not burning on the night of January 30, 1929.

Approximate position: 13° 09′ 12″ N., 87° 54′ 10″ W.

4. *Central America, Salvador, La Libertad, Information Concerning Lights.*—The master of the American steamer *Saramacca* reports under date of January 28, 1929, as follows concerning lights at La Libertad:

(a.) The light on the end of the pier is fixed red, and not fixed white as heretofore shown.

(b.) The occulting white light at La Libertad was not to be found nor could a lighthouse or anything resembling it be seen. In view of this and other reports, this light is believed not to exist and will be expunged from the charts.

Approximate position: 13° 28′ 45″ N., 89° 19′ 15″ W.

H. BURGESS,
Governor.

CANAL WORK IN FEBRUARY, 1929.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of February, 1929.

BALBOA HEIGHTS, C. Z., *March 18, 1929.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of February, 1929:

NUMBER OF TRANSITS.

During the month 522 commercial vessels passed through the Canal. In addition to these, 23 nonseagoing launches measuring under 20 tons, and 55 vessels belonging to the United States Government transited the Canal. There were also 2 transits of a Panaman Government vessel and 4 transits of vessels solely for repairs, on which no tolls were collected, making a total of 606 transits for the month, or a daily average of 21.64.

Tolls on the 522 commercial vessels amounted to $2,211,961.20, and on the launches to $194.88, a total of $2,212,156.08, or a daily average on all traffic of $79,005.57.

Total commercial traffic for the past month was somewhat lower than that in February, 1928 (with 547 commercial ships). This was due to a decrease in shipping from Pacific to Atlantic. In the traffic from Atlantic to Pacific there were 10 more transits of commercial vessels last month than in the corresponding month a year ago, while the transits from the Pacific were 35 fewer than in February, 1928. This decrease was attributed principally to the greatly decreased wheat movement from the west coast of North America, and in a less degree to curtailed shipments of lumber and nitrates.

The total numbers of craft of all kinds transiting the Canal during the month of February, 1929, as compared with the same month in 1928 and 1927, are shown in the following tabulation:

	February, 1929.	February, 1928.	February, 1927.
Commercial vessels	522	547	449
Noncommercial vessels (Army and Navy)	55	40	38
Launches under 20 tons measurement	23	8	28
Panaman Government vessels	2		
Vessels for repairs	4	2	1
Totals	606	597	516

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	5	3	8
Pedro Miguel	36	30	66
Miraflores	17	21	38
Totals	58	54	112

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1929, to the end of February, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927–8	1928–9	1927–8.	1928–9.	1927–8.	1928–9.	1927–8.	1928–9.
July	509	599	2,406,955	2,318,395	2,450,468	2,291,955	$2,215,515.99	$2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
September	540	487	2,532,942	2,295,053	2,397,753	2,313,011	2,294,432.34	2,111,230.56
October	567	557	2,585,752	2,515,380	2,717,646	2,582,477	2,380,115.97	2,274,945.30
November	559	527	2,591,717	2,468,297	2,488,882	2,501,630	2,369,267.99	2,225,937.48
December	589	579	2,616,728	2,698,140	2,573,828	2,714,987	2,39 ,459.75	2,443,029.39
January	540	603	2,422,770	2,771,280	2,372,061	2,858,835	2,212,752.50	2,502,815.12
February	547	522	2,460,111	2,428,530	2,660,425	2,550,498	2,253,758.37	2,211,961.20
Totals	4,394	4,310	20,130,589	19,932,321	20,091,010	20,238,729	18,398,340.46	18,078,071.55

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for February, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly averages for the calendar year 1928:

	February, 1929.	February, 1928.	February, 1927.	Average per month for calendar year 1928.
Number of vessels	522	547	449	528
Panama Canal net tonnage	2,428,530	2,460,111	2,201,328	2,411,953
United States net tonnage	1,863,423	1,882,643	1,710,273	1,851,471
Registered gross tonnage	3,056,320	3,073,830	2,791,577	3,029,975
Registered net tonnage	1,873,854	1,885,445	1,714,276	1,855,554
Tolls	2,211,961.20	2,253,755.37	1,994,860.82	2,197,996.86
Tons of cargo carried	2,550,498	2,660,425	2,230,107	2,450,132

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial vessels only:

	Average per day.			Average per day for calendar year 1928.
	February, 1929.	February, 1928.	February, 1927.	
Number of transits	18.64	18.86	16.03	17.31
Panama Canal net tonnage	86,733	84,831	78,618	79,080
Tolls	78,998.62	77,715.70	71,245.02	72,065.47
Tons of cargo carried	91,089	91,738	79,646	80,332

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during February, 1929, as compared with February, 1928, and 1927, are shown in the following tabulation:

	Average per vessel.		
	February, 1929.	February, 1928.	February, 1927.
Panama Canal net tonnage	4,652	4,497	4,902
United States net tonnage	3,570	3,442	3,809
Registered gross tonnage	5,855	5,619	6,217
Registered net tonnage	3,590	3,447	3,822
Tolls	4,237.47	4,120.21	4,442.89
Tons of cargo (including vessels in ballast)	4,886	4,863	4,966
Tons of cargo (laden vessels only)	5,890	5,873	6,317

TOLLS.

At present tolls are collected at rates of $1.20 per net ton for laden vessels and 72 cents per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed $1.25 per ton nor be less than 75 cents per ton as determined in accordance with the United States rules for measurement of the registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined both in accordance with the Panama Canal and the United States rules of measurement.

Due to this limiting proviso the tolls actually collected on laden vessels averaged $0.948 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of February, 1929, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian	$5,177.50	$4,792.00		$385.50
British	722,176.89	747,064.80	$24,887.91	
Chilean	11,873.75	12,440.00	566.25	
Colombian	3,165.20	2,677.00		488.20
Danish	41,000.56	43,612.60	2,612.04	
Dutch	24,823.75	29,665.00	4,841.25	
Finnish	5,796.00	6,360.00	564.00	
French	51,586.25	53,692.00	2,105.75	
German	98,457.55	107,366.20	8,908.65	
Greek	20,168.41	20,628.80	460.39	
Italian	31,056.22	32,499.60	1,443.38	
Japanese	51,760.47	48,834.60		2,925.87
Norwegian	78,984.19	75,488.20		3,495.99
Panaman	8,491.90	10,121.00	1,629.10	
Peruvian	7,493.55	10,390.00	2,896.45	
Spanish	11,555.47	10,821.60		733.87
Swedish	54,253.21	54,511.80	258.59	
United States	957,599.52	972,534.80	14,935.28	
Yugoslav	26,540.81	25,794.80		746.01
Totals	2,211,961.20	2,269,294.80	66,109.04	8,775.44
Net increase for all traffic			57,333.60	

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$14,476.41
United States foreign trade	516.47
United States–Canal Zone trade	[1] 57.60
Net increase	14,935.28

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in February, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian		1.70	1.70
British	.96	1.39	1.21
Chilean	.52	1.03	.71
Colombian	1.42	.92	1.19
Danish	1.22	1.85	1.53
Dutch	.58	1.19	.60
Finnish	1.61		1.61
French	.47	1.40	.98
German	1.01	1.34	1.15
Greek		1.83	1.83
Italian	.26	1.05	.64
Japanese	1.18	1.60	1.32
Norwegian	1.13	1.74	1.47
Panaman	.99	1.35	1.26
Peruvian	.39	.79	.50
Spanish		1.08	1.08
Swedish	.75	2.27	1.56
United States	1.01	1.53	1.32
Yugoslav	1.52	1.93	1.78
Average, February, 1929	.96	1.49	1.26
Average, February, 1928	.85	1.56	1.28
Average, February, 1927	.92	1.59	1.28

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of February, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	4	20,520	$20,705.00	35	202,210	$205,146.05
Ballast	42	225,697	162,559.62	.....	.....	.....
General cargo ships:						
Laden	190	878,919	814,666.45	203	928,793	884,957.55
Ballast	38	168,005	120,749.62	3	3,433	2,471.76
Noncargo-carrying ships:						
Yachts	3	563	409.20	3	390	295.95
Totals	277	1,293,704	1,119,089.89	245	1,134,826	1,092,871.31
Method of propulsion:						
Steam	216	992,851	875,899.70	218	1,018,318	984,487.26
Motor	60	299,018	241,819.19	27	116,508	108,384.05
Sail	1	1,835	1,371.00	.....	.....	.....
Totals	277	1,293,704	1,119,089.89	245	1,134,826	1,092,871.31

Of the 434 steam-driven vessels, 246 were oil burning, 185 coal burning, and 3 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of February, 1929. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Aircraft tenders	.....	.....	.....	1	[3]3,943	$4,928.75
Cargo ships	.....	.....	.....	1	[3]3,415	4,268.75
Cruisers	2	[1]6,400	$3,200.00	.....	.....	.....
Hospital ships	.....	.....	.....	1	[3]3,963	2,972.25
Mine sweepers	2	[1]1,900	950.00	4	[1]3,800	1,900.00
Patrol vessels	2	[1]1,230	615.00	.....	.....	.....
Repair ships	1	[1]10,000	5,000.00	1	[1]10,000	5,000.00
Store ships	1	[3]3,394	4,242.50	1	[2]3,869	2,785.68
Submarines	3	[1]2,584	1,292.00	7	[1]4,998	2,499.00
Tankers	3	[2]19,206	20,598.24	6	[2]34,717	24,996.24
Tankers	2	[3]11,321	14,151.25	.....	.....	.....
Tugs	1	[1]1,000	500.00	2	[1]2,000	1,000.00
U. S. Army vessels:						
Launches	2	[3]20	15.00	2	[3]20	15.00
Mine planters	1	[1]1,208	604.00	1	[1]1,208	604.00
Transport	2	[3]7,361	9,201.25	2	[3]7,816	9,770.00
Tugs	3	[3]320	240.00	.....	.....	.....
Treasury Department vessels:						
Coast Guard	1	[1]2,075	1,037.50	.....	.....	.....
Totals, U. S. Government	26	.....	61,646.74	29	.....	60,739.67
Panaman Government vessels:						
Transports	1	[2]101	72.72	1	[2]101	72.72
Vessels for repairs:						
Tankers	2	[3]2,722	2,041.50	2	[3]2,730	2,047.50
Grand totals	29	.....	63,760.96	32	.....	62,859.89

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of February, 1929, carried cargo as follows: Atlantic to Pacific, 15,584 tons; Pacific to Atlantic, 2,939 tons; total, 18,523.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement transiting the Canal during the month of February, 1929. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific	14	118	$124.95
Pacific to Atlantic	9	88	69.93
Totals	23	206	194.88

STATEMENT OF TERMINAL OPERATIONS.

Details of business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of February, 1929, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving.....tons.	61,874	29,199	91,073
Local cargo shipped.....tons.	6,959	6,132	13,091
Transit cargo arriving.....tons.	2,548,333	2,510,890	5,059,223
Transit cargo clearing.....tons.	2,534,194	2,571,769	5,105,963
Cargo received for transshipment.....tons.	44,215	34	44,249
Cargo transhipped.....tons.	45,932	367	46,299
"Canal Zone for Orders" cargo:			
Number of receipts issued	89	36	125
Number of withdrawals	478	556	1,034
Tons received	5,324	573	5,897
Tons withdrawn	2,353	507	2,860
Packages received	8,401	8,936	17,337
Packages withdrawn	6,651	7,756	14,407
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company	84	.....	84
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company.....tons.	30,307	.....	30,307
Coal issued, miscellaneous:			
Panama Canal departments.....tons.	66	4	70
U. S. Army, including vessels.....tons.	11	1	12
Individuals and companies.....tons.	118	261	379
Panama Railroad Company.....tons.	5	.....	5
Transferred to Navy.....tons.	266	.....	266
Total sales and issues.....tons.	30,773	266	31,039
Coal on hand, February 1, 1929.....tons.	37,500	.....	37,500
Coal on hand, March 1, 1929.....tons.	24,371	.....	24,371
Coal received during month.....tons.	17,644	.....	17,644
Coal received from Navy.....tons.	.....	266	266
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments.....bbls.	5,131.78	14,662.69	19,794.47
Panama Railroad Company.....bbls.	268.57	.....	268.57
U. S. Army and Navy.....bbls.	.....	772.03	772.03
Individuals and companies.....bbls.	.....	107.62	107.62
Total sales and issues.....bbls.	5,400.35	15,542.34	20,942.69
Fuel oil on hand, March 1, 1929.....bbls.	37,882.02	52,590.03	90,472.05
Diesel oil received during February.....bbls.	.....	1,853.38	1,853.38
Diesel oil sold during February.....bbls.	118.27	1,853.38	1,971.65
Diesel oil on hand, March 1, 1929.....bbls.	22,941.89	493.25	23,435.14
Miscellaneous transfers.....bbls.	44,233.33	16,925.87	61,159.20
Gasoline and kerosene pumped for The Panama Canal.....bbls.	1,765.98	4,184.43	5,950.41
Gasoline pumped for individuals and companies.....bbls.	631.36	5,862.19	6,493.55
Oil pumped for individuals and companies.....bbls.	449,494.27	297,038.23	746,532.50
Oil pumped for U. S. Shipping Board.....bbls.	.....	4,795.19	4,795.19
Oil pumped for U. S. Navy.....bbls.	146,147.50	93,520.00	239,667.50
Total fuel oil, gasoline, and kerosene handled.....bbls.	647,791.06	439,721.63	1,087,512.69
Admeasurement of vessels:			
U. S. equivalent certificates issued	26	3	29
Measured for Panama Canal net tonnage	14	3	17
Remeasured for Panama Canal net tonnage	18	3	21
Panama Canal net tonnage corrected	4	2	6
U. S. equivalent tonnage corrected	12	8	20
Services of harbor equipment:			
Tugs, total operating hours	528	561½	1,089½
Launches, total operating hours	1,616½	2,085½	3,702

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc.:			
Tug revenue	16,961.25	16,065.00	33,026.25
Pilotage	22,015.00	10,354.00	32,369.00
Seamen	12,816.00	11,322.00	24,138.00
Launch service	2,271.00	3,175.00	5,446.00
Wharfage	19,124.94	7,709.68	26,834.62
Ships measured	285.00	25.00	310.00
Miscellaneous	1,269.40	1,224.25	2,493.65
Ships repaired at Panama Canal shops:			
Commercial	69	11	80
U. S. Army and Navy	5	8	13
Panama Canal equipment	5	5	10
Totals	79	24	103
Vessels dry-docked:			
Commercial	9	4	13
U. S. Army and Navy		2	2
Panama Canal equipment	1	4	5
Totals	10	10	20
Clearances issued	315	279	594
Bills of health issued	312	302	614

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	614	3,697,300	2,253,333	555	3,191,094	1,982,760
Vessels entering port but not transiting Canal	63	381,910	225,542	15	46,050	31,349
Vessels transiting Canal and handling passengers and cargo at terminals ports	115	657,389	401,518	91	552,240	335,749
Ships clearing.						
All vessels, including those transiting Canal	616	3,682,497	2,243,142	587	3,344,464	2,114,297
Vessels clearing port but not transiting Canal	66	393,398	232,466	35	135,539	115,789
Vessels transiting Canal and handling passengers and cargo at terminal ports	117	646,359	393,985	92	564,978	343,740

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,317	909	2,226	281	134	415
From Pacific ports	264	247	511	414	282	696
Total disembarking	1,581	1,156	2,737	695	416	1,111
Embarking:						
For Atlantic ports	1,180	972	2,152	104	233	337
For Pacific ports	418	148	566	402	196	598
Total embarking	1,598	1,120	2,718	506	429	935
Remaining on board:						
From Atlantic to Pacific ports	1,852	2,100	3,952	1,989	2,114	4,103
From Pacific to Atlantic ports	1,345	1,507	2,852	1,505	1,521	3,026
From Atlantic to Atlantic ports	5,302	31	5,333			
From Pacific to Pacific ports				40	402	442
Total remaining on board	8,499	3,601	12,100	3,534	4,037	7,571
Total arriving	10,080	4,757	14,837	4,229	4,453	8,682
Total departing	10,097	4,721	14,818	4,040	4,466	8,506

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	277	54	19.5
Pacific to Atlantic	245	59	24.1
Totals	522	113	21.6

In addition to the aforesaid, 58 passenger-carrying vessels called at the port of Cristobal and 3 at Balboa without transiting the Canal, making a total of 174 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of February, 1929:

	Ice.	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$4,055.50	$13,333.62	$37,099.70	$226.26	$6,643.50	$61,358.58
Government vessels	270.90	1,957.36	11,885.35	120.84	1,088.21	15,322.66
Panama Railroad vessels	5.40	.58	1,896.92	564.66	369.00	2,836.56
Total sales, February, 1929	4,331.80	15,291.56	50,881.97	911.76	8,100.71	79,517.80
Total sales, February, 1928	2,831.84	12,233.68	43,876.33	964.58	7,898.14	67,804.57
Total sales, February, 1927	2,366.23	12,755.41	37,519.68	947.66	6,673.26	60,262.24
Sales at Balboa to:						
Commercial vessels	994.34	8,820.92	16,093.23	261.73	3,803.86	29,974.08
Government vessels	7,788.26	17,662.33	57,389.66	259.91	22,356.85	105,457.01
Panama Railroad vessels				37.46		37.46
Total sales, February, 1929	8,782.60	26,483.25	73,482.89	559.10	26,160.71	135,468.55
Total sales, February, 1928	1,611.22	14,313.50	39,737.15	977.70	4,562.70	61,202.27
Total sales, February, 1927	1,189.00	12,767.47	26,815.10	1,801.17	3,605.21	46,177.95

The aggregate sales to Government vessels during the month was $120,779.67; to Panama Railroad vessels, $2,874.02; and to other commercial vessels $91,332.66, making the total sales to all vessels, $214,986.35.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of February, 1929, as compared with the corresponding month in 1928 and 1927.

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.					
	North.	South.	Total.	North.	South.	Total.	Feb., 1929.	Feb., 1928.	Feb., 1927.
Gatun	234	246	480	13	10	23	503	531	444
Pedro Miguel	218	250	468	24	23	47	515	560	468
Miraflores	211	231	442	15	9	24	466	556	461
	Number of vessels put through locks.								
Gatun	243	276	519	47	45	92	611	620	551
Pedro Miguel	245	276	521	86	67	153	674	650	559
Miraflores	245	276	521	58	57	115	636	654	576

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	54	67	56
Panama Canal equipment	8	66	38
Launches (under 20 tons)	14	14	15
Panaman Government vessels	2	2	2
Vessels for repairs	4	4	4

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in February, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,554,820,000	1,358,890,000	1,462,720,000
Leakage	20,000,000	30,500,000	20,000,000
Maintenance			4,180,000
Totals, February, 1929	1,574,820,000	1,389,390,000	1,486,900,000
Totals, January, 1929	2,526,200,000	2,188,770,000	1,800,270,000
Totals, February, 1928	2,118,880,600	1,742,930,000	1,765,700,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of February, 1929, are shown in comparative form in the following tabulation:

	February.		February—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	773	1,695	3,315	516	1,237
Maximum momentary discharge for the month	1,084	6,477	43,500	400	.....
Gatun Lake watershed, total yield	1,250	2,226	5,077	705	1,857
Gatun Lake watershed, net yield	226	1,398	4,207	287	932
Draft on Gatun Lake for lockages and power	2,247	2,919	2,919	1,106	2,041

The total yield of the Gatun Lake watershed for February was 33 per cent below the 16-year average, or 1,250 c. f. s., compared with an average of 1,857 c. f. s. In 16 years of record the total yield for February has been higher in 11 years and lower in 4 years, varying from 5,077 c. f. s. in February, 1915, to 705 c. f. s. in February 1920. The elevation of the lake fell steadily from 86.20 feet at midnight on January 31 to 85.08 feet at midnight on February 28, a total draft on storage of 1.12 feet depth. The mean elevation for the month was 85.59 feet. Miraflores Lake varied from an elevation of 54.54 feet on the 1st to 53.00 feet on the 13th, averaged 53.74 feet and ended at an elevation of 53.56 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 1st, 4th, 10th, 15th, 22d, 23rd, and 25th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 3,277,900 kilowatt hours, and the computed water consumption was 2,521,512,489 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 1,642,100 kilowatt hours, with a fuel oil consumption of 3,469.79 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were completed on 30 vessels during the month. There were 295 work orders issued during the month, as compared with 358 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 79 vessels at Cristobal and 24 at Balboa. Ten vessels were dry-docked at Cristobal and ten at Balboa. The U. S. S. *Richmond* was dry-docked for repairs to propeller, and light running repairs were performed on the Navy tug *Sciota*.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. On the Alhajuela Road, 5,400 feet of right of way were cleared, and 13,570 cubic yards of earth and 10,300 cubic yards of rock were moved in connection with grading.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 749,341,250 gallons.

DREDGING DIVISION.

South Cucaracha slide showed only a slight movement during the month. Cucaracha, West Lirio, East and West Culebra slides showed no movement during the month. There were no other slides and no delays to shipping during the month.

The total excavation during February was 505,150 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Pacific entrance		55,200	55,200
Maintenance	430,000	19,950	449,950
Totals	430,000	75,150	505,150

The new 24-inch Diesel-electric pipe line suction dredge *Las Cruces* was placed in commission in the Pacific sea level section, starting on a one-shift basis on February 2. It worked until the 4th, inclusive, at which time an accident, in the dropping of a spud with the clutch in, resulted in placing the dredge out of service. From the 5th to the 14th the damage was repaired, supplementary equipment was installed to prevent similar accidents, and various adjustments and improvements were made in the machinery and accessories. The dredge resumed operation on the 15th, and on the 17th started operating on a two-shift basis. On the 25th operations on three-shift basis were begun, and the dredge continued working 24 hours a day to the end of the month. The *Las Cruces* worked 280 hours in the month and excavated 128,000 cubic yards from the Pacific channel.

The ferry crossing at the north end of Pedro Miguel locks operated 28 days during the month. Six hundred and fourteen trips were made, and 247 Panama Canal, 1,054 U. S. Army, and 3,799 other vehicles, a total of 5,100, were ferried across the Canal.

OCCUPANTS OF QUARTERS.

The number of persons including men, women, and children, occupying Panama Canal quarters on February 28, 1929, totaled 22,002, composed of 7,577 Americans, 2,739 of whom were men, 2,261 women, and 2,577 children; 244 Europeans, 101 of whom were men, 37 women, and 106 children; and 14,181 West Indians, 4,336 of whom were men, 2,608 women, and 7,237 children. The total number of persons in quarters on February 28, 1928, was 21,429.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of February 20, 1929, with a comparison of the working force for the preceding month and for February, 1928:

	As of February 20, 1929.			Total employees.	
	Gold.	Silver.	Total.	January, 1929.	February, 1928.
Operation and Maintenance:					
Office	44	62	106	96	78
Electrical	154	196	350	355	343
Municipal Engineering	124	1,723	1,847	1,386	940
Lock Operation	281	1,138	1,419	1,451	865
Dredging	189	977	1,166	1,101	1,029
Mechanical	442	782	1,224	1,209	1,340
Marine	209	751	960	922	929
Fortifications	29	425	454	353	326
Totals	1,472	6,054	7,526	6,873	5,850
Supply Department:					
Quartermaster	197	1,938	2,135	1,970	1,923
Subsistence	8	120	128	124	121
Commissary	214	1,329	1,543	1,504	1,319
Cattle Industry	5	160	165	180	285
Hotel Washington	8	116	124	110	113
Transportation	66	221	287	278	257
Totals	498	3,884	4,382	4,166	4,018
Accounting Department	194	7	201	204	205
Health Department	268	813	1,081	1,082	1,172
Executive Department	516	297	813	812	789
Totals	978	1,117	2,095	2,098	2,166
Panama Railroad Company:					
Superintendent	49	285	334	366	307
Transportation	68	131	199	197	182
Receiving and Forwarding Agency	93	2,451	2,544	1,857	1,256
Coaling stations	48	304	352	351	373
Totals	258	3,171	3,429	2,781	2,118
Grand totals, February, 1929	3,206	14,226	17,432	.....	.....
Grand totals, January, 1929	3,169	12,749	.....	15,918	.....
Grand total, February, 1928	3,010	11,142	.....	.....	14,152

Additions to the gold force on the Isthmus in February were as follows: Employed in the United States, 2; reemployed in the United States, 2; employed on the Isthmus, 24; reemployed on the Isthmus, 9; total, 37. Separations from the gold force totaled 26, as follows: Resigned, 15; discharged, 6; retired 3; died, 2. At the end of the month there were on file 178 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 188 deaths occurred during the month of February, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 17.42 per 1,000 population. The leading causes of death were: Tuberculosis (various organs, 30; pneumonia (broncho and lobar), 30; diarrhea and enteritis, 17; organic diseases of the heart, 11; and syphilis, 8. There were 7 deaths each from cancer, apoplexy and chronic nephritis, 2 each from measles and dysentery, and 1 from paratyphoid fever. There were 24 deaths among non-residents. These are not included in the above statistics.

There were 277 live births, and 15 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 27.06 per 1,000 population. Deaths among children under 1 year of age numbered 41, giving an infant mortality rate based on the number of live births reported of 148.01.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during February was 93, of whom 20 were employees (7 white and 13 colored), 12 were members of employees' families (2 white and 10 colored), 5 were Canal Zone agriculturists, 19 were other civilian nonemployees, and 37 were Army personnel. Of the 32 employees and members of employees' families, 25 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick. There was one death from malaria, a colored female living in Colon.

All of the five cases of smallpox admitted during January were discharged well, and no further cases have been reported.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $487,401.06, of which $478,181.48 was for the Department of Operation and Maintenance and $9,219.58 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to $43,166.24.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of January, 1929, as compared with January, 1928, and the figures for the first seven months of the current fiscal year as compared with the same period in the fiscal year 1928.

It is impossible to submit the figures for the month of February at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	January, 1929.	January, 1928.	To end of January.	
			This year.	Last year.
Tolls	$2,502,896.12	$2,212,855.81	$15,864,332.23	$16,145,252.43
Other receipts	359,431.26	294,852.09	2,320,416.36	2,057,901.03
Total transit revenues	2,862,327.38	2,507,707.90	18,184,748.59	18,203,153.46
Total transit expenses	1,099,118.93	1,040,809.65	7,431,962.10	6,983,875.72
Net transit revenues	1,763,208.45	1,466,898.25	10,752,786.49	11,219,277.74
Three per cent capital charge	615,760.80	612,586.13	4,311,282.70	4,277,875.93
Transit surplus	1,147,447.65	854,312.12	6,441,503.79	6,941,401.81
Business revenues	1,719,614.60	1,267,135.48	9,677,983.31	8,866,369.78
Business expenses	1,583,092.32	1,179,520.75	9,105,179.86	8,339,569.70
Net business revenues	136,522.28	87,614.73	572,803.45	526,800.08
Three per cent capital charge	61,161.92	61,520.28	451,484.09	450,991.89
Business surplus	75,360.36	26,094.45	121,319.36	75,808.19
Combined revenues	4,581,941.98	3,500,419.44	27,862,731.90	25,149,465.49
Combined expenses	2,682,211.25	1,945,906.46	16,537,141.96	13,403,387.67
Net revenues	1,899,730.73	1,554,512.98	11,325,589.94	11,746,077.82
Three per cent capital charge	676,922.72	674,106.41	4,762,766.79	4,728,867.82
Combined surplus	1,222,808.01	880,406.57	6,562,823.15	7,017,210.00

Respectfully,

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 23, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross	Net.
Tainui	16	20.45	17	6.10	17	15.38	17	22.05	British	Shaw, Savill & Albion	477.8	61.0	29.0	London, England	Wellington, N. Z.	General	4,600	10,657	7,617
New Jersey [1]	16	23.20	17	6.28	17	17.20	17	18.44	American	The Texas Co	416.8	56.0	19 0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,130	5,249
Sacramento	17	1.45	17	7.30	17	19.42	18	22.39	American	Charles Nelson & Co	380.0	53.2	17.0	Norfolk, Va.	San Francisco, Cal.	([7])	3,700	5,653	4,122
Pacific Cedar	17	4.35	17	7.25	17	20.43	17	23.55	American	Dimon S. S. Corp	400.0	54.7	21.0	New York, N. Y.	Seattle, Wash.	General	5,663	6,138	4,354
Ohioan	17	6.45	17	8 55	17	21.15	17	23.55	American	Amer.-Hawaiian Line	407.7	53.7	20.4	Boston, Mass	Portland, Oreg.	General	3,761	7,103	4,991
Baron Fairlie	17	7.10	17	9.30	17	22.10	17	23.55	British	The Texas Co	440.0	57.3	24.6	Port Arthur, Texas	Fremantle, Aust'lia	Case oil	8,000	7,366	5,115
San Mateo	17	1.40	17	12.05	17	19 56	17	21 28	American	United Fruit Co	315.2	44.2	19.6	Port Limon, C. R.	San Francisco, Cal.	([8])	346	3,496	2,141
Herbjorn [1] [2]	17	6.35	17	13.28	17	23.00	18	2.10	Norwegian	A. S. Herbjorn	441.1	59.2	19.0	Gothenburg, Swe'n.	Los Angeles, Calif.	Ballast		8,085	5,725
Arinosa [3]			17		17	10.24			American	United Fruit Co				Cristobal, C. Z	Gatun, C. Z	Towing barges.		8	8
No. 31075 [4]			17		17	10.24			American	United Fruit Co				Cristobal, C. Z	Gatun, C. Z.	Ballast		15	15
No. 31076 [4]			17		17	10.24			American	United Fruit Co				Cristobal, C. Z	Gatun, C. Z.	Ballast		15	15
Marore	17	3.00	17	17.13	18	13.31	18	14 30	American	Ore S. S. Corp	550.3	72.2	20.5	New York, N. Y.	Cruz Grande, Chile	Ballast		15,551	4,297
Ucayali	10	17.10	18	6.15	18	14.30	18	16.30	Peruvian	Peruvian Line	374.7	46 3	18.6	Cristobal, C. Z	Callao, Peru	General	610½	4,466	2,405
Almagro	17	15.10	18	6.13	18	14 38	18	16 20	British	Pacific Steam Nav. Co.	303 4	43 0	18 8	New York, N. Y.	Callao, Peru	General	2,819	2,826	1,770
Eemdijk	15	18.23	18	7.35	18	15 18	18	16.20	Dutch	Holland-American Line	469 0	58 3	20.6	Rotterdam, Holland	Vancouver, B. C.	General, bananas	2,173½	8,514	6,066
Saale [2]	17	11.05	18	8.35	18	16.10	18	16 50	German	North German Lloyd	470 0	61 0	21.10	Hamburg, Germany	Vancouver, B. C	General	3,765	9,335	6,844
Ecuador	17	6.10	18	9.57	18	17 03	19	17.44	American	Panama Mail S. S. Co.	380.6	48.7	23.7	New York, N. Y	San Francisco, Cal.	General	2,000	5,926	4,178
City of Lille [2]	18	6.20	18	11.00	18	19 04	18	20 00	British	Amer.-Manchurian Line	445.0	58.0	28 0	New York, N. Y.	Shanghai, China	General	9,113	8,555	6,167
Markland [1] [2]	18	7 45	18	11 55	18	20 15	18	21.30	Norwegian	Anglo-Saxon Pet. Co.	408.3	55.3	18.6	London, England	San Francisco, Cal.	Ballast		6,474	4,321
Cambridge	18	10.55	18	13 10	18	22 12	19	4 53	British	N. Z. Shipping Co	524.0	65.3	28.0	Avonmouth, Eng	Dunedin, N. Z.	General	8,160	12,485	8,854
Derbyline [1]	18	13.37	18	15.20	18	23.05	19	3.16	American	The Texas Co	435 0	56.0	21.6	Port Arthur, Tex	Los Angeles, Calif.	Ballast		7,446	5,173
Birk	19	9.10	19	9 40	19	17.09	19	18 42	Norwegian	Anglo-Chilean Ni'te Co.	359 0	52.0	11 0	Mobile, Ala	Tocopilla, Chile	Ballast		4,751	3,160
Cuyama [1]	17	20.20	19	13.40	19	23.40	20	1.15	American	U. S. Navy	455.0	56.0	21.0	Cristobal, C. Z	Balboa, C. Z				
Minnesotan	19	16.05	19	16.35	20	00.24	20	1.49	American	Amer.-Hawaiian Line	407.0	53.0	19.0	Boston, Mass	Seattle, Wash.	General	4,036	7,150	5,024
Ciricito [3]			19		19	15 54			American	San Blas Develop. Co.				Cristobal, C. Z	Gatun, C. Z.	Ballast		8	8
Spillway [3]			19		19	15.54			American	Geo. Hardy				Cristobal, C. Z	Gatun, C. Z	([9])		4	4
Hull Maud			19		19	15.54			American	Geo. Hardy				Cristobal, C. Z	Gatun, C. Z.			6	6
Chickasaw City	20	00.40	20	6.20	20	14.45	20	19.48	American	U. S. Steel Products Co.	411.6	55.0	26.6	New York, N. Y.	Tacoma, Wash.	Steel, general	8,550	7,322	5,237
England Maru	20	2.20	20	7.15	20	15.49	20	16.55	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.0	Baltimore, Md.	Yokohama, Japan	General	7,728	6,214	4,665
K. R. Kingsbury [1]	20	11.55	20	12.05	20	18.43	20	19.50	American	Standard Oil Co	440.0	58.0	22.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,033	5,938
Cleveland [5]	11	13 35	20	12.45	20	21 45			American	U. S. Navy	292.0	44.0		High seas	Balboa, C. Z				
El Panquiaco [6]	20	12.20	20	12.20	20	21.45			Panaman	Panaman Government	125.0	23.0		Cristobal, C. Z	Balboa, C. Z	Ballast		288	101
Snestad [2]	20	16.15	20	16.50	21	00.06	21	1.35	Norwegian	Fern Line	377.0	54.0	24.0	Houston, Tex	Yokohoma, Japan	([10])	6,771	6,079	4,534
Tregonell	20	12.20	20	19.55	21	10.29	21	11.49	British	Andrew Weir & Co	400.0	52.0	26.0	Pto. Manati, Cuba	Auckland, N. Z.	Sugar	6,800	5,776	4,051
Murla	19	15.15	21	6.10	21	13.32	22	1.43	German	Roland Line	450.0	58.0	26.0	Hamburg, Germany	Valparaiso, Chile	General	6,255	7,756	5,378
Saint Joseph	19	15.45	21	7.15	21	15.10	21	16.10	Norwegian	J. Lund	258.0	39.7	11.3	Tampa, Fla	Puntarenas, C. R.	Ballast		1,820	1,134

[1] Tanker. [2] Motor ship. [3] Launch. [4] Barge. [5] Cruiser. [6] Transport. [7] Coal, steel, and general. [8] Bananas, coffee, and cocoa. [9] Towing *Hull Maud*. [10] Phosphate, lubricating oil, and cotton.

Cedar Branch	20	22.40	21	7.25	21	15.16	21	16.35	British	F. & W. Ritson	390.0	51.0	21.0	Mid'borough, Eng.	Talcahuano, Chile	General	4,100	4,927	3,597
Lewis Luckenbach	20	21.58	21	9.00	21	16.04	21	16.55	American	Luckenbach Line	496.0	68.2	22.0	Boston, Mass	Seattle, Wash	General	6,000	11,487	8,762
Santa Barbara [11]	21	5.40	21	10.10	21	16.58	22	00.20	American	Grace Line	466.0	64.0	23.6	New York, N. Y.	Talcahuano, Chile	General	2,968	10,687	6,633
Hermion	20	23.35	21	11.25	21	19.38	21	21.10	Norwegian	Bruusgaard Line	390.0	54.0	27.0	Antwerp, Belgium	Vancouver, B. C.	(15)	6,900	5,746	4,232
S-11 [12]			21	11.45	21	21.40			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z				
Oregonstar	21	7.15	21	12.00	21	20.30			British	Blue Star Line	425.9	53.9	18.6	Liverpool, England	Vancouver, B. C.	Ballast		7,506	5,261
Greystroke Castle [11]	21	7.20	21	12.45	21	21.55	21	22.48	British	Lancashire Shipping Co.	428.0	56.0	23.0	New York, N. Y.	Shanghai, China	Case oil, general	6,077	7,596	5,179
Jane Christenson	21	10.10	21	13.25	21	22.25	22	3.00	American	Arrow Line	409.0	54.2	20.6	Baltimore, Md	Seattle, Wash	General	6,287	6,615	4,966
Doricstar	21	12.43	21	14.10	22	10.19	22	11.45	British	Blue Star Line	499.8	64.0	20.0	Newcastle, England	Vancouver, B. C.	Ballast		11,673	8,143
Orcoma	21	9.30	22	6.10	22	14.05	22	15.00	British	Pacific Steam Nav. Co.	511.6	62.0	26.2	Liverpool, England	Talcahuano, Chile	General	3,314½	12,417	8,305
Absaroka	21	22.50	22	7.10	22	19.18	22	20.40	American	McCormick S. S. Co.	409.6	54.1	23.0	New York, N. Y.	Tacoma, Wash	General	5,154	6,627	4,993
President Van Buren	22	5.50	22	7.30	22	16.04	22	21.25	American	Dollar Line	502.0	62.2	29.0	New York, N. Y.	San Francisco, Cal.	General	5,309	12,023	8,495
La Crescenta [1]	21	23.05	22	8.30	22	21.25	22	22.50	British	Anglo-Saxon Pet. Co.	400.0	53.0	24.0	Falmouth, England	Los Angeles, Calif.	Ballast		6,128	4,062
Nebraska	21	13.05	22	8.45	22	22.20	22	23.28	British	Royal Mail S. P. Co.	450.0	58.0	20.3	Rotterdam, Holland	Portland, Oreg.	Bananas, general	1,852½	8,878	6,588
Arcadia [13]	21	20.05	22	9.00	22	18.58	23	14.05	American	Margaret S. Hardwick	174.2	27.6	10.6	Miami, Fla	Gallapagos Island.	Ballast		591	263
Julia Luckenbach	22	7.10	22	10.42	22	23.15	23	00.36	American	Luckenbach Line	436.0	57.0	26.0	Houston, Tex	Seattle, Wash	General	6,952	8,543	6,402
Hutchinson	21	18.50	22	11.25	23	00.15	23	1.12	American	Chas. R. McCormick.	324.0	46.0	23.0	Texas City, Tex.	Los Angeles, Calif.	Sulphur	4,692	4,053	2,649
Cerigo	19	15.20	22	11.45	22	21.35	22	22.50	German	Hamburg-AmericanLine	227.0	34.0	13.2	Cristobal, C. Z	Guayaquil, Ecud'r.	General	142	1,572	1,011
Novasli	22	4.35	22	11.35	23	00.11	23	1.22	Norwegian	Moore & McCormack.	342.0	48.0	14.6	New York, N. Y.	Valparaiso, Chile	General	1,000	3,929	2,798
Faith [14]			22		22	10.54			American	J. R. Powell				Cristobal, C. Z	Gatun, C. Z	Ballast		2	2
Solana [1]	23	2.20	23	6.30	23	18.05	23	19.20	American	Tidewater Oil Co.	419.5	56.5	20.6	New York, N. Y.	San Francisco, Cal.	Ballast		7,060	5,025
Mongolia	23	8.25	23	8.55	23	16.15	23	23.56	American	Panama-Pacific Line	600.0	65.3	28.0	New York, N. Y.	San Francisco, Cal.	General	3,605	17,041	11,426
Karamea [11]	23	9.00	23	9.30	23	19.47	24	3.35	British	Shaw, Savill & Albion	481.0	64.0	26.6	London, England	Nelson, N. Z	General	6,190	11,729	8,373
W. H. Libby [1]	23	12.05	23	12.15	23	20.35	24	1.35	American	Standard Shipping Co.	462.0	60.2	20.6	New York, N. Y.	Los Angeles, Calif.	Ballast		8,461	6,104
Palatia [11]	22	11.20	23	13.15	23	21.18	24	3.35	German	Hamburg-AmericanLine	374.0	54.0	20.0	Hamburg, Germany	Valparaiso, Chile	General	4,459		
Feltore	23	7.50	23	14.30	23	22.15	23	23.38	American	Ore S. S. Corp.	449.1	57.2	19.6	Baltimore, Md.	Cruz Grande, Chile	Ballast		7,808	5,139
Caldas [11]	21	14.20	23	14.30	23	22.57	24	14.10	Colombian	National Navigation Co.	116.0	21.1	10.6	Cristobal, C. Z	Buenaventura, Col.	General	424	211	124
Sagama River	23	10.30	23	15.35	24	00.32	24	1.35	British	Andrew Weir & Co.	385.0	52.0	23.6	Pt. Arthur, Tex.	Geelong, Australia	Case oil	5,726		
Sugillenco	23	7.35	23	16.30	24	00.30	25	10.36	American	Transmarine Lines	324.0	46.2	24.8	Mobile, Ala	San Francisco, Cal.	General	4,475	3,984	2,612
Virginian	23	13.18	23	17.35	24	1.10	24	2.15	American	Amer.-Hawaiian Line	491.5	58.2	21.0	Boston, Mass	Portland, Oreg.	General	4,300	10,491	7,601
J. R. Gordon	23	16.55	23	18.55	24	2.10	24	3.35	American	Union Sulphur Co.	409.8	54.2	17.2	Galveston, Tex	Pt. Alice, B. C.	Sulphur	3,300	6,581	4,784

[1] Tanker. [11] Motor ship. [12] Submarine. [13] Yacht. [14] Launch. [15] Sand, coke, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Helen Olmsted [1]	16	13.50	17	5.00	17	13.30	17	13.30	American	The Texas Co.	425.8	57.0	26.0	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,176	7,484	5,216
Sunugentco	16	15.55	17	5.18	17	14.25	17	14.25	American	Transmarine Lines	324.0	46.2	25.0	Aberdeen, Wash.	New York, N. Y.	Lumber	2,615	3,984	2,628
Steelore [1]	17	00.30	17	6.13	17	16.20	17	16.20	American	Ore S. S. Corp.	550.3	72.2	34.0	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	15,551	4,297
Smyrna	16	18.30	17	7.11	17	17.10	18	10.00	German	Roland Line	260.4	37.1	15.2	Champerico, Guat	Bremen, Germany	(16)	956	1,715	933
Ethan Allen	16	16.40	17	7.20	17	17.40	17	17.40	American	Tampa Interocean Co.	439.6	60.2	27.0	Manila, P. I.	Baltimore, Md	(17)	10,817	8,978	6,525
Britta [1]	17	4.25	17	8.05	17	18.25	17	18.25	Norwegian	A. H. Mathiesen	407.8	54.7	25.7	Los Angeles, Calif	Land's End, Eng. [18]	Gasoline	7,895	6,539	4,252
Cuyama [1]	17	7.00	17	9.07	17	20.20	19	13.40	American	U. S. Navy	475.0	56.2	27.6	Los Angeles, Calif	Cristobal, C. Z	Gas and oil	8,315		

[16] Coffee, honey, and sugar. [17] Sugar, coconut oil, and tapioca. [18] For orders.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Harry Luckenbach	17	6.49	17	9.44	17	20.30	17	20.30	American	Luckenbach Line	448 9	60.2	29 6	Seattle, Wash	Mobile, Ala	General	7,560	9,262	6,853
King City	17	7.45	17	10.30	17	21.18	17	21.18	British	Sir. W. R. Smith & Sons.	414.7	53.4	24 5	Vancouver, B. C.	Manchester, Eng.	General	7,515	6,993	5,397
Challenger [19]	17	10.20	17	11.15	17	21.45	17	21.45	American	Isthmian S. S. Lines	410.0	56.0	30 0	Seattle, Wash	London, England	Lumber, general.	9,673	7,780	5,811
Simonburn	17	13.15	17	14.05	17	22.40	17	22.40	British	Common Brothers	390.0	53.5	25.6	Portland, Oreg.	Dublin, Ireland	Wheat	8,050	5,625	4,158
Sydland	17	16.00	17	22.30	18	9.00	18	9.00	Swedish	Axel Broström & Son	450 0	54.0	28 0	Prince Rupert, B.C.	Avonmouth, Eng.	Grain in bulk	8,747	6,771	4,891
Port Caroline	17	19.55	17	23.25	18	10.40	18	14.15	British	Com'lth & Dom. Line	480.7	62.4	27.0	Auckland, N. Z.	London, England	Frozen, general.	7,660	10,740	7,829
Nordlys	17	18.40	18	00.15	18	11.30	18	12.40	Danish	Peter Brown & Co	362.0	51.5	23 7	Taltal, Chile	Jacksonville, Fla.	Nitrates	6,350	4,932	3,468
Oakmar	18	00.05	18	1.20	18	12.43	18	12.43	American	Calmar S. S. Corp	384.4	51.2	25 9	Gray's Har., Wash.	Boston, Mass	Lumber	6,394	6,328	4,433
Altair [1]	17	17.10	18	3.00	18	14.15	18	14.15	American	Standard Transp. Co.	429 3	59 2	28 0	Los Angeles, Calif.	New York, N. Y.	Gas oil	10,400	7,695	5,402
Teno	17	23.10	18	6.37	18	16.00	18	20.50	Chilean	Chilean Line	421 8	56 0	27 4	Talcahuano, Chile	New York, N. Y.	General	4,745	7,764	4,672
Queen Maud [1]	18	6.00	18	7.11	18	17.10	18	18.40	British	Thos. Dunlop & Sons	400 2	52 8	25.0	Tocopilla, Chile	Baltimore, Md.	Nitrates	7,700	5,748	3,955
Pat Doheny	18	6.50	18	8.16	18	18.25	18	18.25	American	Richfield Oil Co	420 2	59 2	25.3	Los Angeles, Calif.	New York, N. Y.	([20])	9,187	7,978	5,840
Gracia	18	14.50	18	15.28	18	23.40	19	4.15	British	Donaldson Line	415 5	54 2	27 2	Vancouver, B. C.	London, England	General	6,564	6,809	4,842
Abron	18	17.20	18	22.18	19	8.55	19	8.55	American	Redwood Line	386.8	52.2	22 3	San Francisco, Cal.	New Orleans, La.	Lumber, general.	5,199	5,732	4,131
Leeds City	18	21.45	18	23.21	19	9.25	19	12.30	British	Sir W. R. Smith & Sons	400 2	54.3	26.8	Vancouver, B. C.	Manchester, Eng.	Wheat	8,030	6,997	5,461
Guatemala	18	13.10	19	5.31	19	11.50	21	2.00	American	Panama Mail S. S. Co.	360 2	51 6	24.6	San Francisco, Cal.	New York, N. Y.	Coffee, general.	2,982	5,776	4,081
California	18	11.36	19	6.09	19	13.30	19	14.05	American	Panama-Pacific Line	574 4	80 3	30.5	San Francisco, Cal.	New York, N. Y.	General	7,400	24,506	17,565
Illinois [1]	18	23.39	19	7.20	19	15.10	19	15.10	American	The Texas Co	416 8	56 1	25 6	Wilmington, Calif.	New York, N. Y.	Gasoline	7,662	7,150	5,330
Cerigo	18	23.55	19	7.41	19	15.25			German	Hamburg-American Line	227 4	34 4	13 0	Guayaquil, Ecud'r.	Cristobal, C. Z.	General		396	1,572	1,011
Aleksandar I	18	23.55	19	8.16	19	16.40	19	17.30	Yugoslav	Yugoslav Lloyd	423 0	56 0	26 0	Antofagasta, Chile	Azores [21]	Nitrates	9,700	6,561	4,701
Acajutla	19	3.00	19	8.22	19	16 50			British	Pacific Steam Nav. Co	215.7	33 5	17 7	Champerico, Guat.	Cristobal, C. Z.	([22])	1,124	1,273	706
Lina L. D	19	5.35	19	9 30	19	17.55	19	19.55	French	Louis Dreyfus & Co	420.0	54 0	24 0	San Francisco, Cal.	Genoa, Italy	Asphalt	8,120	7,075	5,301
Dorothy Luckenbach.	19	9.00	19	10.21	19	18.30	19	18.30	American	Luckenbach Line	448 9	60.2	31.0	Portland, Oreg.	Boston, Mass	Lumber, general	9,800	9,294	6,861
Port Alma [19]	18	20.15	19	11.07	19	20 10	19	20.10	British	Com'lth & Dom. Line	477 3	63.2	25 6	Wellington, N. Z.	London, England	General	6,837	10,684	7,796
Saramacca	19	12.00	19	13.07	19	20.55			American	United Fruit Co	336 7	42 0	19.0	San Francisco, Cal.	Port Limon, C. R.	General	1,099	3,668	2,308
Victolite [1] [19]	19	14 00	19	15.00	19	23.05	19	23.05	British	Imperial Oil Co., Ltd	510.2	68 2	30 0	Cabo Blanco, Peru.	Halifax, N. S.	Crude oil	16,300	11,575	7,648
Point Fermin	19	14.15	19	15 36	19	23.20	19	23.20	American	Swayne & Hoyt	324 0	46.2	21.3	Portland, Oreg.	New Orleans, La.	General	3,040	3,984	2,617
Bennekom	19	18.45	19	19.50	20	9.20	20	14.50	Dutch	Royal Neth. S. S. Co.	449.7	58 2	26 0	Corral, Chile	Europe	Nitrates, general	8,232	7,849	5,806
Saint Louis	20	1.25	20	5.11	20	13.45			French	French Line	397 9	50 3	24 3	Valparaiso, Chile	Le Havre, France	([23])	6,696	5,857	4,166
Annie Johnson [19]	20	2.20	20	6.13	20	13 55			Swedish	Johnson Line	392.2	52.6	25 3	Seattle, Wash	Stockholm, Sweden	General	5,811	6,650	4,919
Gustaf E. Reuter [1] [19]	20	4.40	20	7.04	20	15.25	20	16 50	Swedish	Rederiaktiebolaget	418 8	55 1	27.6	Los Angeles, Calif	Hamburg, Germany	Gasoline	8,310	6,384	4,497
Tiger [1]	20	6.45	20	8.20	20	17.00	20	17.00	American	Standard Transp. Co.	410.0	56 0	27 4	Los Angeles, Calif	New York, N. Y.	Gas oil	8,721	8,201	6,207
Floreana [19]	20	11.00	20	11.30	20	22 00			Colombian	Colombian Transp. Co.	150 0	27.2	11.2	Buenaventura, Col.	Cristobal, C. Z.	General	500	410	307
Newbrough	20	17.10	20	18.18	21	9.05	21	9 45	British	Common Brothers	390 0	56 8	26 0	Vancouver, B. C.	Rotterdam, Holland	Wheat	8,250	5,766	4,286
Drechtdijk [19]	20	17.25	20	20.08	21	10.30	22	14.05	Dutch	N. Pacific Coast Serv	485 5	62.3	27.0	Vancouver, B. C.	Rotterdam, Holland	General	8,102	10,793	7,619
Feodosia	20	20.00	20	22.46	21	12.04	21	17.00	German	Hamburg-American Line	337.8	48.3	12.8	Champerico, Guat	Hamburg, Germany	Ballast		4,316	3,142

[1] Tanker. [19] Motor ship. [20] Gasoline and canned paint. [21] For orders. [22] Coffee and silver bars. [23] Coffee, sugar, and nitrates.

Nicoline Maersk [24]	21	2.30	21	5.08	21	13.55	21	15.00	Danish	A. P. Moller	374.8	52.2	24.8	Iquique, Chile.	Wilmington, N. C.	Nitrates	7,400	5,928	4,453
Caldas [24]	21	3.15	21	5.28	21	14.20	23	14.30	Colombian.	National Navigation Co.	116.0	21.1	9.0	Buenaventura, Col.	Cristobal, C. Z.	General	170¾	211	124
Dean Emery	21	21.00	22	5.16	22	13.15	22	14.45	American	Pan.-Amer. Pet & Tr. Co.	429.3	59.2	26.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,420	7,709	5,517
Salina [1]	22	8.09	22	10.58	22	19.42	22	19.42	American	Gladstone Transp. Co.	426.0	57.0	29.8	Los Angeles, Calif.	Baltimore, Md.	Crude oil	10,665	7,484	5,210
Brighton	22	10.00	22	11.54	22	21.35	22	22.25	British	R. Chapman & Sons	409.0	54.0	24.6	Vancouver, B. C.	Falmouth, England	Wheat	8,126	5,729	4,102
Vis trgis	22	11.00	22	13.03	22	21.25			German	Panama Mail S. S. Co.	239.7	37.6	12.2	Puntarenas, C. R.	Cristobal, C. Z.	Coffee, wood	201	1,406	855
Schwaben	22	11.15	22	15.05	22	23.15	23	19.10	German	North German Lloyd	491.4	63.8	26.8	Vancouver, B. C.	Hamburg, Germany	General	10,190	10,002	6,743
San Castro [1] [25]	16	20.23	22	15.38	22	23.45	22	23.45	British	Eagle Oil Transport Co.	305.0	51.0	11.0	Cristobal, C. Z.	Maracaibo, Venez.	Ballast			
Kansan	22	11.39	22	15.46	22	23.45	22	23.45	American	Amer.-Hawaiian Line	404.6	56.9	28.0	Seattle, Wash.	Boston, Mass.	General	6,795	6,779	4,927
D. G. Schofield [1]	22	8.00	23	5.28	23	13.10	23	13.10	American	Standard Oil Co. of Cal.	439.5	58.0	29.0	Los Angeles, Calif.	New York, N. Y.	Fuel, gas oil	10,549	8,698	5,935
Atago Maru [24]	22	13.00	23	6.10	23	14.00	23	14.00	Japanese	Nippon Yusen Kaisha	449.2	57.0	25.3	Iloilo, P. I.	New York, N. Y.	Sugar, general	8,887	8,158	5,676
Notre Dame De Fourviere	22	15.00	23	7.06	23	16.05	24	12.14	French	French Line	427.3	58.3	26.6	Vancouver, B. C.	Havre, France.	[26]	7,957	8,043	5,454
Heffron	23	1.30	23	8.01	23	16.55	23	16.55	American	Heffron S. S. Co.	440.0	56.0	27.6	Vancouver, B. C.	Newark, N. J.	Lumber	9,750	8,312	6,097
Buffalo Bridge	22	22.05	23	8.58	23	18.10	23	18.10	American	Nelson S. S. Co.	324.0	46.2	23.6	San Francisco, Cal.	Baltimore, Md.	Lumber, copper	3,680	3,986	2,630
Anglo Chilean	23	6.50	23	9.28	23	19.50	23	23.30	British	Lawther, Latta & Co.	470.0	58.3	25.7	Dunedin, N. Z.	London, England	[27]	9,058		
Algonquin [1]	23	10.00	23	11.01	23	20.45	23	20.45	American	Standard Transp. Co.	435.0	56.0	27.0	Los Angeles, Calif.	New York, N. Y.	Kerosene	9,687	7,602	5,337
Cali	23	10.20	23	11.46	23	21.55			German	Roland Line	216.0	32.9	13.3	Guayaquil, Ecuad'r.	Cristobal, C. Z.	[28]	678	1,105	698
David McKelvy [1]	23	10.30	23	12.26	23	23.05	24	00.20	American	Tidewater Oil Co.	430.0	59.2	25.9	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,458	7,629	5,325
Hamburg Maru	23	13.15	23	15.00	23	23.10	24	10.28	Japanese	Osaka Shosen Kaisha	400.0	54.5	21.0	Manila, P. I.	New York, N. Y.	Sugar, general	5,888	6,094	4,301

[1] Tanker. [24] Motor ship. [25] Transited south March 16 for dry-docking only. [26] Wheat, coffee, and copper. [27] Zinc, concentrates, and wool. [28] Cacao, coffee, and ivory nuts.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
March 17	Macabi	United Fruit Co	Puerto Colombia, Col.
March 17	Minerva	Royal Netherlands S. S. Co	Hamburg via wayports.
March 17	No. 8044 [29]	Pan-American Airways	Miami, Fla., via wayports.
March 19	Magdelena	Hamburg-American Line	Hamburg via wayports.
March 20	Linda S. [30]	A. L. Surgeon	Colon, R. P.
March 20	Coppename	United Fruit Co	New Orleans, La.
March 20	Santa Marta	United Fruit Co	New York via Kingston.
March 20	Mercian	Leyland Line	Palo Alto, Cuba.
March 21	Flandre	French Line	Havre via wayports.
March 21	Tolon	United Fruit Co	New York via wayports.
March 21	Waunta	Standard Fruit & S. S. Co	Puerto Cabezas.
March 21	Inapaquina [31]	United Fruit Co	Colon, R. P.
March 21	Annetta I. [31]	A. Tagarapulos	Colon, R. P.
March 22	Amapala	Standard Fruit & S. S. Co	New Orleans, La.
March 22	Iriona	United Fruit Co	Bocas, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
March 17	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
March 17	Novian	Leyland Line	Moro, Cuba.
March 17	No. 9717 [29]	Pan-American Airways	David, R. P.
March 17	Camden	United Fruit Co	Curacao, D. W. I.
March 17	Cristobal	Panama Railroad Line	New York via Haiti.
March 17	Simon Bolivar	Royal Netherlands S. S. Co	Amsterdam via wayports.
March 17	Macabi	United Fruit Co	New York via Kingston.
March 18	All America [32]	All America Cable Co	High seas.
March 18	Parismina	United Fruit Co	New Orleans via wayports.
March 20	Linda S. [30]	A. L. Surgeon	Bluefields, Nicaragua.
March 21	Annetta I. [31]	A. Tagarapulos	Colon, R. P.
March 21	Inapaquina [31]	United Fruit Co	Colon, R. P.
March 21	Coppename	United Fruit Co	Puerto Colombia.
March 21	Santa Marta	United Fruit Co	New York via wayports.
March 22	No. 8044 [29]	Pan-American Airways	Miami via wayports.

[29] Airplane mail carrier. [30] Motor schooner. [31] Motor boat. [32] Cable ship.

* Other than ships passing through the Canal.

(Continued on next page, column 2.)

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 12 cents per pound and forequarters at 9½ cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Trips Through the Canal.

The following lines operating passenger vessels through the Canal carry local passengers from one terminal to the other: Panama Mail Steamship Company, Pacific Steam Navigation Company, Grace Line, Chilean Line, Navigazione Generale Italiana, Hamburg-American Line. The Panama Mail and Hamburg-American Line charge $6 for the trip, the others $10 for first-class passage. The Chilean Line has also a rate of $4 for intermediate class, and the Panama-Pacific Line a rate of $6 for tourist class. The several services together afford about 4 transits of the Canal each way every week.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 499.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
March 22	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.	March 22	Minerva	Royal Netherlands S. S. Co.	Curacao, D. W. I.
March 23	Heredia	United Fruit Co.	New Orleans via Habana.	March 22	Flandre	French Line	Havre via wayports.
March 23	Carmania [33]	R. Feuillebois	Colon, R. P.	March 22	Toloa	United Fruit Co.	New York via wayports.
				March 22	Mercian	Leyland Line	Curacao via wayports.
				March 23	Iriona	United Fruit Co.	New Orleans via Pt. Limon.
				March 23	Amapala	Standard Fruit & S. S. Co.	New Orleans via wayport.
				March 23	Magdalena	Hamburg-American Line	Cartagena, Col.
				March 23	Waunta	Standard Fruit & S. S. Co.	Puerto Cabezas.

[33] Motor schooner.

PORT OF BALBOA.

March 18	Nora	W. R. Grace & Co.	Los Angeles, Calif.	March 19	Nora	W. R. Grace & Co.	Los Angeles, Calif.
March 20	Neches	U. S. Navy	Los Angeles, Calif.	March 20	Ginyo Maru	Nippon Yusen Kaisha	Hongkong, China.
March 20	H. M. Storey	Standard Oil Co. of Calif.	Long Beach, Calif.	March 21	H. M. Storey	Standard Oil Co. of Calif.	Los Angeles, Calif.
March 20	Ginyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile	March 21	Neches	U. S. Navy	Los Angeles, Calif.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., April 3, 1929. No. 35.

Traffic Through the Panama Canal in March, 1929.

During the month of March, 1929, 536 commercial vessels and 15 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,343,865.55, and on the launches $144.24, or a total tolls collection of $2,344,009.79.

The daily average number of commercial transits for the month was 17.29, and the average tolls collection $75,608.57, as compared with an average of 18.64 transits and $78,998.62 in tolls for the previous month. The average amount of tolls paid by each of the commercial transits was $4,372.88, as compared with $4,237.47 for the month of February, 1929.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 9 months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 9 months of the fiscal years 1928 and 1927:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January	603	2,502,815.12	19.45	80,735.97
February	522	2,211,961.20	18.64	78,998.62
March	536	2,343,865.55	17.29	75,608.57
Totals, first 9 months of fiscal year 1929	4,846	20,421,937.10	17.68	74,532.62
Totals, first 9 months of fiscal year 1928	4,936	20,621,711.03	17.95	74,988.04
Totals, first 9 months of fiscal year 1927	4,085	18,127,174.49	14.90	66,157.57

As compared with the first 9 months of the fiscal year 1928, the corresponding period this year has had 90 fewer transits and $199,773-.93 less tolls.

Beginning of Tri-weekly Air-Mail Service Between Canal Zone and United States.

An airplane of the Pan-American Airways, Inc., which left France Field on the morning of April 2, carrying 18 pounds of mail, was reported by the local representative of the operating Company to have been the first northward flight in what will be maintained as a tri-weekly air-mail service between the Canal Zone and Miami, Florida. Beginning in February, 1929, the Pan-American Airways, Inc., established a semimonthly mail service between Cristobal and Miami. Beginning with the flight started on April 2 it is purposed to make dispatches every Tuesday, Thursday, and Saturday.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, March 30, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Ashby	23	20.05	24	6.40	24	13.57	24	15.55	British	Sir R. Ropner & Co	405.0	53.6	15.0	S. Shields, Eng	British Columbia	Ballast		5,858	4,300
Floreana [2]	20	22.00	24	6.08	24	17.00	25	2.30	Columbian	Colombian Transp. Co	150.0	27.0	9.4	Cristobal, C. Z	Pto. Armuelles, R.P	General	430	410	307
Santa Tecla	23	15.55	24	6.15	24	15.19	24	16.40	American	N. O. & S. A. S. S. Co	298.6	40.0	22.7	New Orleans, La	Talcahuano, Chile	General	2,782	2,832	1,803
Saramacca	23	19.05	24	6.10	24	13.50	24	16.40	American	United Fruit Co	336.7	42.0	19.8	Port Limon, C. R.	San Francisco, Cal.	Bananas, etc	733	3,668	2,308
Atlantic City	23	16.20	24	7.28	24	15.27	24	16.40	American	Maple Leaf Milling Co	411.7	54.5	27.3	New York, N. Y.	Taku Bar, China	Flour	8,678	6,555	4,659
India Arrow [1]	23	23.05	24	7.52	24	16.58	24	18.15	American	Standard Oil Co	468.3	62.7	19.6	New York, N. Y.	Los Angeles, Calif.	Ballast		10,084	7,426
Hollywood	23	23.25	24	8.45	24	18.56	24	23.00	American	C. R. McCormick & Co.	427.0	54.0	21.1	Montevideo, Uru'y	San Francisco, Cal.	General	5,095	6,584	5,030
City of Panama [3]	14	17.55	24	9.10	24	18.58	24	22.04	Panaman	Panama Mail S. S. Co.	296.0	46.0	19.10	Cristobal, C. Z	San Francisco, Cal.	General	2,163	3,848	2,603
Margarethe Cords	24	1.25	24	9.18	24	19.56	24	21.12	German	Colombian Mar. Co.	265.0	42.0	14.6	Rio Hacha, Col.	Tumaco, Col	Salt	1,894	2,263	1,622
San Lamberto [1]	23	21.50	24	10.10	24	20.05	24	21.12	British	Anglo-Mexican Pet. Co.	395.6	55.0	27.0	Curacao, D. W. I.	Antofagasta, Chile	Oil	8,628	6,741	4,345
El Lobo [1]	24	6.53	24	11.55	24	21.18	24	22.40	British	Atlantic Refining Co	385.2	51.0	18.0	Philadelphia, Pa.	La Libertad, Ecud'r	Ballast		4,851	3,326
Suwordeneo	24	7.20	24	12.10	24	21.23	24	22.41	American	Transmarine Lines	324.0	46.2	19.0	Newark, N. J.	San Francisco, Cal.	General	2,141	3,984	2,612
Svealand [1]	24	7.35	24	13.25	24	22.23	25	3.50	Swedish	Ore S. S. Corp	561.0	72.0	20.0	New York, N. Y.	Cruz Grande, Chile	Ballast		15,425	4,421
Brielle	22	4.30	24	15.20	25	00.21	25	1.40	Dutch	Royal Neth. S. S. Co.	403.0	58.0	21.0	Hamburg, Germany	Corral, Chile	General	3,170	7,322	4,798
Suwied	24	14.15	24	16.00	25	00.27	25	1.40	American	Charles Nelson & Co.	324.0	46.2	19.6	Charleston, S. C.	Tacoma, Wash	General	3,300	3,983	2,629
Howick Hall	24	13.35	24	18.55	25	2.44	25	3.50	American	N. Y. & S. Amer. Line	400.0	51.0	26.6	New York, N. Y.	Corral, Chile	Steel, general	6,366	6,095	4,381
Maltran	24	18.20	25	6.25	25	15.41	25	17.10	American	Maltran S. S. Co	333.0	48.0	20.0	Philadelphia, Pa.	Seattle, Wash	(a)	3,460	4,171	2,827
Point Gorda	25	1.05	25	6.38	25	15.44	25	17.10	American	Gulf-Pacific Line	324.0	46.2	24.0	Houston, Texas	Vancouver, B. C.	General, etc.	3,889	3,984	2,643
Santa Cecilia	24	18.58	25	7.45	25	17.09	25	18.10	American	Isthmian S. S. Lines	404.6	54.0	28.2	Baltimore, Md	Vancouver, B. C.	Steel, general.	8,218	6,745	4,562
City of Kimberly	24	21.10	25	8.40	25	18.04	25	19.20	British	Ellerman & Bucknall.	416.0	56.0	26.6	New York, N. Y.	Adelaide, Australia	General	5,564	7,987	6,093
Chastine Maersk [3]	24	23.00	25	9.00	25	18.52	25	19.50	Danish	A. P. Moller	378.0	50.0	25.0	Baltimore, Md	Iloilo, P. I	General	7,300	5,526	4,066
Pennmar	25	5.10	25	11.05	25	19.48	25	23.54	American	Calmar S. S. Corp	385.0	51.2	28.0	Baltimore, Md	Seattle, Wash	Steel, general.	8,034	6,224	4,465
Agwistar	25	6.15	25	12.27	25	20.38	26	10.46	American	DuPont de Nemours	370.0	53.1	18.0	New York, N. Y.	Talcahuano, Chile	General	2,509	5,523	4,068
Rexmore	24	23.00	25	13.10	25	21.30	25	22.40	British	Com'lth & Dom. Line	420.0	55.0	21.9	New York, N. Y.	Freemantle, Aust'a.	General	2,082	6,648	4,394
Albertolite [2]	25	5.55	25	13.40	25	22.30	25	23.35	British	Imperial Oil Co., Ltd	414.5	55.2	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		6,437	4,442
El Ciervo [1]	25	11.45	25	15.05	25	23.20	26	3.44	British	Lobitos Oilfields Co	407.4	53.0	17.0	Falmouth, England	LaLibertad, Ecud'r.	Ballast		6,046	4,326
Sachsen	24	19.30	25	16.30	26	00.24	26	1.40	German	Hamburg-American Line	468.8	58.3	18.10	Hamburg, Germany	Vancouver, B. C.	General	1,754	9,624	6,732
Silvermaple [3]	25	12.37	25	17.55	26	1.13	26	2.25	British	Kerr S. S. Co	425.0	58.3	20.0	New York, N. Y.	Manila, P. I.	General	4,383	8,216	6,037
Launch			25		25	12.02			American	U. S. Navy				Cristobal, C. Z	Gatun, C. Z				
Orazio [3]	25	4.45	26	6.05	26	13.38	26	19.16	Italian	Nav. Gen. Italiana	484.0	61.8	24.0	Genoa, Italy	Valparaiso, Chile	General	1,963	12,977	9,373
W. S. Rheem [2]	25	22.30	26	7.25	26	19.26	26	20.30	American	Standard Oil Co	500.0	68.2	18.6	Baltimore, Md	Los Angeles, Calif.	Ballast		11,224	7,895
Pacific	26	2.00	26	8.40	26	18.35	26	23.50	American	Argonaut S. S. Co	400.0	56.0	27.0	Baltimore, Md	Tacoma, Wash	Steel, general.	7,901	6,517	4,723
Major Pullen [4]			26		26	12.53			American	U. S. Army				Cristobal, C. Z	Gatun, C. Z				
West Katan	26	5.35	26	10.10	26	20.26	26	21.25	American	Quaker Line	410.5	54.3	22.2	Wilmington, Del.	Tacoma, Wash	General	5,938	6,573	4,916

[1] Tanker. [2] Motor schooner. [3] Motor ship. [4] Launch. [5] Cardboard containers.

Lobos [6]	25	12.20	26	11.15	26	21.18	27	1.25	British	Pacific Steam. Nav. Co.	405.0	54.2	19.6	Hull, England	Corral, Chile	General	3,839½	7,151	4,756
Poljana	26	13.00	26	13.15	26	22.28	27	1.25	Norwegian	Scand.-So. Pacific Co.	360.7	52.2	24.5	Oslo, Norway	San Antonio, Chile.	([8])	6,255	5,451	3,820
City of Adelaide	26	12.50	26	18.25	27	2.11	27	3.28	British	Hall Line, Ltd	450.0	57.5	23.7	New York, N. Y.	Dunedin, N. Z.	General	4,033	8,547	6,646
Yngaren [6]	26	18.25	26	19.15	27	3.09	27	7.31	Swedish	Transatlantic S. S. Co.	422.0	53.9	14.1	Dunkirk, France	Los Angeles, Calif.	Ballast		6,972	5,122
Astral [1]	26	19.10	26	21.00	27	13.24	27	14.40	American	Standard Transp. Co.	439.5	58.0	21.9	New York, N. Y.	Los Angeles, Calif.	Ballast		8,913	6,210
Visurgis	22	21.25	27	6.55	27	16.17	27	17.20	German	North German Lloyd	231.0	37.8	15.8	Cristobal, C. Z.	Puntarenas, C. R.	General	2,200	1,406	855
American	26	20.45	27	7.15	27	16.11	27	17.20	American	Amer.-Hawaiian Line	404.6	53.9	19.0	Boston, Mass	Tacoma, Wash	General	3,788	6,777	4,761
J. L. Luckenbach	26	19.15	27	8.45	27	17.09	27	18.25	American	Luckenbach Line	448.9	60.2	24.0	Boston, Mass	Seattle, Wash	General	5,700	9,294	6,861
Ontariolite [1] [6]	26	23.10	27	10.20	27	19.14	28	3.30	British	Imperial Oil Co., Ltd.	470.0	63.0	28.0	Cartagena, Col.	Vancouver, B. C.	Crude oil	12,072	9,191	5,278
Sylvafield [1] [6]	27	00.55	27	12.10	27	19.43	28	00.22	British	Hunting & Son	395.0	52.5	20.3	Tyne, England	Los Angeles, Calif.	Ballast		5,900	3,993
Francis E. Powell [1]	27	4.55	27	13.45	27	22.10	27	23.04	American	Atlantic Refining Co.	431.0	59.2	20.0	Fall River, Mass.	Los Angeles, Calif.	Ballast		7,860	5,101
Elisa [7]			27	9.00	27	16.06			Panaman	Robert Wilcox	38.0	9.6		Cristobal, C. Z.	Balboa, C. Z.	Ballast		14	12
Herman Falk [1] [6]	27	17.00	27	18.15	28	1.23	28	2.25	American	Tidewater Oil Co	431.0	59.2	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,862	5,049
Wayfarer	27	8.00	28	6.17	28	13.05	28	14.30	British	T. & J. Harrison	395.0	52.0	18.0	Liverpool, England	Williamshead, B.C.	Ballast		5,728	3,855
Chilore	27	14.47	28	7.15	28	15.12	28	17.10	American	Ore S. S. Corp.	549.0	72.0	21.6	Baltimore, Md.	Cruz Grande, Chile	Ballast		14,538	9,348
Abadan [1] [6]	27	14.55	28	7.35	28	17.12	28	22.00	Swedish	Anglo-Saxon Pet. Co.	417.5	55.2	16.0	Falmouth, England	Los Angeles, Calif.	Ballast		6,362	4,245
Willmoto [6]	27	23.10	28	8.55	28	18.46	28	19.55	American	Williams S. S. Line	390.0	54.0	28.4	Norfolk, Va.	Seattle, Wash	Iron, general	7,050	6,162	4,417
Modemi	27	17.20	28	9.40	28	19.39	28	22.25	Norwegian	Ivar & Christensen	371.0	51.0	16.0	Antwerp, Belgium	Puntarenas, C. R.	Iron pipes	1,500	5,007	3,702
Pacific Pioneer [6]	27	13.50	28	14.17	28	21.00	28	22.00	British	Furness, Withy & Co.	435.0	60.0	20.0	Glasgow-England	Vancouver, B. C.	Bananas, general	1,823	9,630	6,943
Arkansas	28	2.15	28	16.49	29	00.04	29	1.20	French	French Line	448.0	53.0	18.0	Havre, France	Vancouver, B. C.	General	594	7,678	5,563
R. D. Leonard [1]	28	17.25	28	18.30	29	3.33	29	8.25	American	Union Oil Co	276.10	39.0	18.6	Philadelphia, Pa.	Oelum, Calif.	Lubricating oil	2,324	1,936	1,304
Dixie Arrow [1]	28	19.10	28	19.25	29	3.45	29	4.25	American	Standard Oil Co.	468.3	62.7	21.0	Boston, Mass.	Los Angeles, Calif.	Ballast		9,744	7,140
Ebro	28	17.50	29	6.05	29	14.22	29	15.35	British	Pacific Steam Nav. Co.	450.0	56.0	26.5	New York, N. Y.	Talcahuano, Chile.	General	4,303	9,291	6,301
Memphis City	28	21.35	29	7.10	29	16.57	29	18.11	American	Isthmian S. S. Lines	425.0	56.0	26.0	Baltimore, Md.	Shanghai, China.	Steel, general	7,562	7,611	5,450
Peter Kerr	28	22.20	29	7.35	29	17.41	29	18.35	American	Arrow Line	415.0	55.6	21.0	Baltimore, Md.	Los Angeles, Calif.	General	4,885	7,704	5,707
Atholl	29	2.40	29	8.55	29	19.05	29	20.00	British	Norton, Lilly & Co.	385.5	48.7	20.7	New York, N. Y.	Freemantle, Aust'ia	General	4,950	4,830	3,556
Mary Ellen O'Neil [1] [6]	29	5.25	29	9.37	29	19.52	29	21.00	American	The Texas Co	509.7	70.3	21.0	Baltimore, Md.	Los Angeles, Calif.	Ballast		12,514	8,427
Rendal	28	20.10	29	11.10	29	19.13	30	00.10	Norwegian	Rajnar Moltzau	250.9	43.0	17.6	Rotterdam, Holland	Puntarenas, C. R.	Iron pipes	1,700	2,229	1,368
Oakpark	29	9.40	29	11.10	29	20.45	30	3.36	American	Roosevelt S. S. Co., S. B.	402.6	53.0	18.2	New York, N. Y.	Adelaide, Australia	General	2,175	6,570	4,798
Sydhav [1] [6]	29	6.55	29	12.28	29	21.55	30	10.19	Norwegian	Anglo-Saxon Pet. Co.	450 8	61.0	20.0	Tyne, England	Los Angeles, Calif.	Ballast		8,168	5,452
Storstad [1] [6]	29	12.30	29	13.40	29	22.50	30	13.25	Norwegian	Standard Shipping Co.	470.0	62.2	20.0	Rotterdam, Holland	Talara, Peru	Ballast		9,198	6,287
Amerikaland [1]	30	3.25	30	6.20	30	14.45	30	18.41	Swedish	Ore S. S. Corp	561.0	72.0	22.5	Baltimore, Md.	Cruz Grande, Chile	Ballast		15,560	4,496
Point Reyes	30	5.40	30	7.45	30	15.38	30	17.10	American	Swayne & Hoyt	324.0	46.2	18.6	New Orleans, La.	Vancouver, B. C.	General	2,321	3,984	2,617
Glasgow Maru	30	9.40	30	9.50	30	16.29	30	17.35	Japanese	Anthony Gibbs & Co.	385.0	51.0	13.0	Philadelphia, Pa.	Arica, Chile	Ballast		6,213	4,665
Rotorua	30	11.45	30	12.00	30	19.15	31	2.00	British	N. Z. Shipping Co.	526.0	61.4	28.3	London, England	Auckland, N. Z.	General	7,565	12,846	9,439
Cali	23	21.25	30	13.45	30	21.25	30	22.45	German	North German Lloyd	216.5	32.9	15.3	Cristobal, C. Z.	Buenaventura, Col.	General	850	1,105	698
Canadian Miller	30	15.10	30	15.35	31	00.15	31	1.41	British	Can. Nat. Steamships	400.0	52.0	19.0	Halifax, N. S.	Vancouver, B. C.	General	1,381	5,892	4,186
Martha [6]	1–18	17.30	30	16.45	31	1.25	31	5.33	Norwegian	H. C. Stevenson	183.2	30.0	12.3	Cristobal, C. Z.	Pto. Armuelles, R. P.	General	800	780	504

[1] Tanker. [6] Motor ship. [7] Launch. [8] Explosives and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Hurunui	23	23.36	24	5.13	24	13.30	24	14.40	British	N. Z. Shipping Co	470.0	62.5	23.6	Port Pirie, Austr'ia	London, England	Frozen, general	6,916	10,174	7,209
Charles R. McCormack	24	3.50	24	6.04	24	14.48	24	14.48	American	McCormick S. S. Co	401.4	53.2	27.0	Seattle, Wash	Baltimore, Md	Lumber, general	7,030	7,082	5,667
Watertown [7]	24	4.00	24	6.47	24	16.30	24	16.30	American	Cities Service Trans. Co.	416.9	56.2	27.4	Los Angeles, Calif	Providence, R. I.	Gasoline	9,200	6,717	4,778
Adria [1 9]	24	1.25	24	7.47	24	17.47	25	3.45	German	Atlantic Tank Rederei	412.0	55.1	25.6	Los Angeles, Calif	Liverpool, England	Benzine	8,388	6,579	4,574
Commercial Guide	24	12.15	24	13.02	24	22.13	25	1.10	American	Moore & McCormack	406.7	55.2	25.4	Antofagasta, Chile	Charleston, S. C.	Nitrates	7,700	6,597	4,752
Edgemont	24	12.40	24	14.52	25	9.15	25	9.15	American	Roosevelt S. S. Co., S.B.	409.6	54.0	27.5	Manila, P. I	Delaware River	Sugar	8,450	7,448	5,868
Santa Maria [9]	24	11.45	25	3.19	25	10.35	25	21.15	American	Grace Line	466.0	64.0	26.0	Talcahuano, Chile	New York, N. Y.	Copper, general	5,203	10,626	6,680
Atlantic Sun [2]	25	1.25	25	4.41	25	13.25	25	13.25	American	Sun Oil Co	429.4	59.2	26.0	Los Angeles, Calif	Miami, Fla	Gasoline	9,242	7,568	5,283
Firmore	25	4.50	25	5.42	25	15.00	25	15.00	American	Ore S. S. Corp	449.1	57.2	29.0	Cruz Grande, Chile	Baltimore, Md	Iron ore	11,613	7,847	5,185
Bushnell			25	9.22	25	17.27			American	U. S. Navy	300.0	48.0		Balboa, C. Z	Cristobal, C. Z				
S-6 [10]			25	9.37	25	19.15			American	U. S. Navy	231.0	22.0		Balboa, C. Z	Cristobal, C. Z				
S-8 [10]			25	9.37	25	19.15			American	U. S. Navy	231.0	22.0		Balboa, C. Z	Cristobal, C. Z				
S-3 [10]			25	9.43	25	19.15			American	U. S. Navy	231.0	22.0		Balboa, C. Z	Cristobal, C. Z				
S-7 [10]			25	9.43	25	19.15			American	U. S. Navy	231.0	22.0		Balboa, C. Z	Cristobal, C. Z				
Perene	25	10.00	25	11.14	25	20.05	26	17 10	Peruvian	Peruvian Line	284.1	39.1	17.0	Callao, Peru	New York, N. Y.	General	2,020	2,168	1,529
Queenswood	25	18.40	25	23.34	26	9.25	26	9.25	British	Can.-Amer. S. S. Co	370.5	56.3	23.0	Portland, Oreg	Liverpool, England	Lumber, general	6,295	4,973	3,581
S-14 [10]			25	23.36	26	9.20			American	U. S. Navy	231.2	22.0		Balboa, C. Z	Cristobal, C. Z				
S-16 [10]			25	23.36	26	9.20			American	U. S. Navy	231.2	22.0		Balboa, C. Z	Cristobal, C. Z				
Preradovic	25	21.45	26	00.47	26	11.15	26	11.15	Yogoslav	Baburizza & Co	420.5	54.5	25.8	Taltal, Chile	Azores [11]	Nitrates	8,200	6,362	4,722
S-15 [10]			26	1.05	26	11.00			American	U. S. Navy	231.2	22.0		Balboa, C. Z	Cristobal, C. Z				
S-17 [10]			26	1.05	26	11.00			American	U. S. Navy	231.2	22.0		Balboa, C. Z	Cristobal, C. Z				
Camden			26	4.31	26	14.05			American	U. S. Navy	389.2	48.0		Balboa, C. Z	Cristobal, C. Z				
S-12 [10]			26	4.40	26	12.45			American	U. S. Navy	231.0	22.0		Balboa, C. Z	Cristobal, C. Z				
S-13 [10]			26	4.40	26	12.45			American	U. S. Navy	231.0	22.0		Balboa, C. Z	Cristobal, C. Z				
S-1 [10]			26	4.57	26	14.10			American	U. S. Navy	219.3	20.8		Balboa, C. Z	Cristobal, C. Z				
S-18 [10]			26	4.57	26	14.10			American	U. S. Navy	219.3	20.8		Balboa, C. Z	Cristobal, C. Z				
S-21 [10]			26	5.46	26	14.10			American	U. S. Navy	219.2	20.8		Balboa, C. Z	Cristobal, C. Z				
S-23 [10]			26	5.46	26	14.10			American	U. S. Navy	219.2	20.8		Balboa, C. Z	Cristobal, C. Z				
Seattle [9]	26	3.35	26	6.36	26	15.25	26	18.05	German	Hamburg-American Line	461.5	62.0	24.0	Seattle, Wash	Hamburg, Germany	General	7,484	9,267	6,834
Falcon			26	6.48	26	15.30			American	U. S. Navy	180.0	35.0		Balboa, C. Z	Cristobal, C. Z				
Carl Legien	26	4.40	26	7.43	26	17.00			German	Hamburg-American Line	409.8	53.9	21.9	Corral, Chile	Hamburg-Germany	General	7,795	7,145	5,474
Oregonian	26	5.20	26	8.05	26	17.10	26	17.10	American	Amer.-Hawaiian Line	404.6	53.9	27.0	Portland, Oreg	Boston, Mass	General	6,570	6,754	4,800
Katrina Luckenbach	26	6.45	26	8.30	26	18.05	26	18.05	American	Luckenbach Line	446.0	56.1	29.4	Portland, Oreg	Boston, Mass	General	8,470	8,508	6,179
Lark			26	9.24	26	19.25	26	19.25	American	U. S. Navy	180.0	35.6		Balboa, C. Z	Cristobal, C. Z	Towing raft			
Tairoa	26	8.40	26	10.08	26	19.15	27	13.35	British	Shaw, Savill & Albion	478.0	63.2	26.6	Wellington, N. Z	London, England	Frozen, general	8,400	11,192	8,149
Hesperos	26	9.35	26	11.05	26	20.35	26	21.20	Norwegian	Bruusgaard Co	389.8	54.1	23.6	Seattle, Wash	Antwerp, Belgium	Lumber, general	7,390	5,693	4,230

[2] Tanker [9] Motor ship. [10] Submarine. [11] For orders.

Treloske	26	10.30	26	12.03	26	20.40	27	15.05	British	Foster, Hain & Read	400.2	52.1	23.0	Vancouver, B. C.	Greece	Wheat	7,034	5,767	4,319
Grootendijk	26	11.55	26	13.38	26	22.10			Dutch	Holland-American Line	450.6	58.2	29.6	Victoria, B. C.	Hamburg, Germany	General	8,273	8,730	5,860
Unden	26	14.50	26	22.05	27	9.58	27	11.10	Swedish	Transatlantic S. S. Co.	375.0	52.0	24.0	Tocopilla, Chile	Azores [14]	Nitrates	7,109	5,336	3,708
Esparta	26	19.15	26	22.10	27	9.30			American	United Fruit Co	330.6	44.6	19.6	San Francisco, Cal.	Port Limon, C. R.	Coffee, general	1,536		
Jersey City	26	15.10	27	1.00	27	11.08	27	12.05	British	Sir W. R. Smith & Sons	411.6	55.0	28.0	Vancouver, B. C.	London, England	Wheat in bulk	9,130	6,952	5,005
Cape Ortegal	26	17.00	27	3.12	27	13.20	27	14.20	British	Can.-Amer. Ship. Co.	405.0	52.5	24.0	Vancouver, B. C.	Hamburg, Germany	Wheat, lumber	6,930	5,650	4,071
Orinoco	26	18.00	27	4.16	27	14.35	27	14.35	American	Quaker Line	376.4	52.4	24.0	Gray's Har., Wash.	Wilmington, Del.	Lumber	6,500	5,455	3,902
Jefferson Myers	26	17.57	27	5.15	27	16.15	27	16.15	American	Quaker Line	440.0	56.0	29.0	Portland, Oreg.	New York, N. Y.	[15]	10,051	8,300	6,020
West Mingo	27	6.10	27	8.41	27	17.35	27	17.35	American	States S. S. Co.	410.0	54.4	24.0	Seattle, Wash.	Philadelphia, Pa.	Lumber	6,921	6,476	4,682
Salvador	27	12.45	27	13.34	27	22.00			British	Pacific Steam Nav. Co.	215.0	33.5	17.0	Champerico, Guat.	Cristobal, C. Z.	[16]	1,025	1,270	735
Mamilius	27	19.30	27	20.50	28	9.35	28	14.00	British	Shaw, Savill & Albion	477.5	63.1	25.0	Dunedin, N. Z.	Glasgow, Scotland	[17]	6,700	11,588	8,232
Lagarto [12]	27	19.00	28	5.34	28	14.40	28	23.12	British	Pacific Steam Nav. Co.	385.6	52.0	25.2	Corral, Chile	Liverpool, England	General	5,962	5,656	3,823
S-11 [13]			28	6.11	28	14.05			American	U. S. Navy	231.0	22.0		Balboa, C. Z.	Cristobal, C. Z.				
Belgium Maru	28	9.40	28	10.24	28	18.55	28	22.00	Japanese	Kokusai Kisen Kaisha	385.0	51.0	21.0	Tocopilla, Chile	Savannah, Ga.	Nitrates	8,250	6,219	4,611
Pacific Shipper [12]	28	9.50	28	11.06	28	20.07	29	3.10	British	Furness, Withy & Co.	420.0	58.0	26.0	Vancouver, B. C.	Glasgow, Scotland	General	7,694	7,892	5,858
Ipswich	28	13.15	28	13.54	28	22.20	28	22.20	American	Argonaut S. S. Co.	400.7	54.2	26.0	Tacoma, Wash.	Baltimore, Md.	[18]	6,866	6,616	4,617
Cauca [12]	28	17.15	28	22.57	29	9.10			Colombian	National Navigation Co.	107.4	22.2	10.0	Buenaventura, Col.	Cristobal, C. Z.	[19]	224	238	168
Mineola	28	22.05	28	23.18	29	9.45	29	12.15	American	N. O. & S. A. S. S. Co.	298.0	40.0	24.0	Iquique, Chile	New Orleans, La.	Nitrates, garlic	3,505	2,835	1,805
Skramstad	29	2.30	29	4.32	29	18.25	29	19.20	Norwegian	Fearnley & Eger	382.7	53.4	26.0	Bangkok, Siam	Habana, Cuba	Rice	7,450	6,082	4,236
Willhilo	28	17.50	29	6.42	29	14.50	29	14.50	American	Williams S. S. Line	434.0	57.7	25.8	Seattle, Wash.	New York, N. Y.	Lumber, general	8,547	7,983	5,859
Cid	29	6.45	29	7.28	29	16.00	30	20.18	British	Pacific Steam Nav. Co.	264.8	41.2	13.8	Callao, Peru	New York, N. Y.	[20]	410	2,746	1,626
Orbita	28	21.05	29	7.52	29	17.45	29	21.15	British	Pacific Steam Nav. Co.	550.3	67.3	30.2	Talcahuano, Chile	Liverpool, England	General	6,856	16,814	11,731
Virgilio [12]	29	7.45	29	9.28	29	17.50	31	20.05	Italian	Nav. Gen. Italiana	502.7	61.8	23.3	Valparaiso, Chile	Genoa, Italy	General	3,032	12,941	9,329
Californian [12]	29	3.50	29	9.45	29	18.45	29	18.45	American	Amer.-Hawaiian Line	445.1	59.8	26.0	Seattle, Wash.	Boston, Mass.	General	8,368	8,567	6,020
Northumberland	29	11.30	29	12.06	29	21.05	29	23.45	British	N. Z. Shipping Co	530.0	63.0	29.0	Port Chalmers, N.Z.	London, England	Frozen, general	7,026	13,268	9,124
Virginia [1]	29	11.35	29	13.44	29	22.00	29	23.15	American	The Texas Co.	416.8	56.6	27.0	Los Angeles, Calif.	Baltimore, Md.	Gas oil	8,940	6,817	4,945
Heinrich Arp	29	16.00	29	21.40	30	9.05	30	14.30	German	Colombian Mar. Co.	237.0	36.0	12.9	Buenaventura, Col.	New York, N. Y.	[21]	476	1,718	1,167
Mansepool	29	20.00	29	22.10	30	10.45	30	12.00	British	Sir R. Ropner & Co.	405.0	53.6	24.0	Vancouver, B. C.	Europe	Wheat	7,788	5,875	4,288
Lebore	30	4.15	30	5.11	30	16.25	30	16.25	American	Ore S. S. Corp.	549.6	72.2	33.9	Cruz Grande, Chile	New York, N. Y.	Iron ore	20,000	14,325	4,635
Argyllshire	29	19.00	30	6.40	30	15.35	30	20.25	British	Turnbull, Martin & Co.	526.0	61.4	23.6	Wellington, N. Z.	London, England	Frozen, general	6,050	12,237	8,672
Java Arrow [1]	30	12.20	30	13.45	30	21.25	30	21.25	American	Standard Oil Co. of N. Y.	468.3	62.7	28.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,573	10,084	7,388
Kia Ora	30	12.30	30	14.30	30	22.15	31	2.10	British	Shaw, Savill & Albion	448.3	56.6	23.0	Wellington, N. Z.	London, England	Frozen, general	4,090	8,237	5,771
Gothicstar	30	12.30	30	15.00	30	23.35	30	23.35	British	Blue Star Line	420.0	54.7	25.0	N. Westminster	Newcastle, England	[22]	6,060	7,521	5,852

[1] Tanker. [12] Motor ship. [13] Submarine. [14] For orders. [15] Lumber, copper, and wheat. [16] Coffee, broom root, and balsam. [17] Meat, cheese, and tallow. [18] Pulp, shingles, and lumber.
[19] Coffee, hides, and platinum. [20] Balsam, coffee, cocoa, and hides. [21] Coffee, hides, and cylinders. [22] Chilled apples and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
March 24	Coppename	United Fruit Co.	Port Limon, C. R.	March 24	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
March 25	Cryussen	Royal Netherlands S. S. Co.	Hamburg via wayports.	March 25	Heredia	United Fruit Co.	New Orleans via wayports.
March 25	Annetta I. [23]	A. Tagarapulos.	Colon, R. P.	March 25	Coppename	United Fruit Co.	Port Limon via Bocas.
March 25	Anachucuna [23]	United Fruit Co.	Colon, R. P.	March 25	Anachucuna [23]	United Fruit Co.	Colon, R. P.
March 25	Inapaquina [23]	United Fruit Co.	Colon, R. P.	March 25	Inapaquina [23]	United Fruit Co.	Colon, R. P.

[23] Motor boat.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
March 26	Camden	United Fruit Co	Curacao, D. W. I.	March 26	Crynssen	Royal Netherlands S. S. Co	Port Limon, C. R.
March 26	Utowana [24]	A. Armour	New London.	March 27	Camden	United Fruit Co	Curacao, D. W. I.
March 27	Mayari	United Fruit Co	New York via wayports.	March 27	Ariguani	Elders & Fyffes Line	Avonmouth via wayports.
March 27	Ariguani	Elders & Fyffes Line	Avonmouth via wayports.	March 28	Inapaquina [25]	United Fruit Co	Colon, R. P.
March 27	Metapan	United Fruit Co	New York via Kingston.	March 28	Metapan	United Fruit Co	New York via wayports.
March 27	Ancon	Panama Railroad S. S. Line	New York via Haiti.	March 29	Annetta I. [25]	A. Tagarapulos	Colon, R. P.
March 27	C-33 [27]	Scadta Airplane Co	Barranquilla, Col.	March 29	Mayari	United Fruit Co	Puerto Colombia.
March 28	Calamares	United Fruit Co	New York via wayports.	March 29	C-33 [27]	Scadta Airplane Co	Barranquilla, Col.
March 28	Crynssen	Royal Netherlands S. S. Co	Port Limon, C. R.	March 29	Coppename	United Fruit Co	New Orleans, La.
March 28	Inapaquina [25]	United Fruit Co	Colon, R. P.	March 29	Calamares	United Fruit Co	New York via wayports.
March 29	Coppename	United Fruit Co	Bocas, R. P.	March 29	Suriname	United Fruit Co	Port Limon via Bocas.
March 29	Atlantida	Standard Fruit & S. S. Co	New Orleans via wayports	March 30	Carmania [28]	R. Feuillebois	Colon, R. P.
March 29	Suriname	United Fruit Co	New Orleans, La.	March 30	William M. [26]	G. I. Bryan	Bluefields, Nicaragua.
March 29	Novian	Leyland Line	Palo Alto, Cuba.	March 30	Atlantida	Standard Fruit & S. S. Co	New Orleans via wayports.
March 29	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	March 30	Crynssen	Royal Netherlands S. S. Co	Amsterdam via wayports.
March 30	William M. [26]	G. I. Bryan	Colon, R. P.				

[24] Yacht. [25] Motor boat. [27] Airplane mail carrier. [28] Motor schooner.

PORT OF BALBOA.

March 24	Anyo Maru	Nippon Yusen Kaisha	Hongkong, China.	March 24	Anyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
March 28	Queen of Scots [26]	A. J. Drexel	Galapagos Island.	March 28	Sambu [28]	Hans Elliot	Panama Bay, R. P.
March 28	Sambu [28]	Hans Elliot	Darien, R. P.	March 28	Dos Hermanos [28]	A. Valdez	Panama Bay, R. P.
March 28	Dos Hermanos [28]	A. Valdez	Bayano River, R. P.	March 28	Dixie [28]	Pacific Fruit Co	Panama Bay, R. P.
March 28	Dixie [28]	Pacific Fruit Co	Bayano River, R. P.	March 30	San Luis [28]	Chiriqui Land Co	Pto. Armuelles, R. P.
March 28	San Luis [28]	Chiriqui Land Co	Pto. Armuelles, R. P.				
March 28	Sacramento	U. S. Navy	San Diego, Cal.				

[28] Motor schooner. [26] Yacht.

* Other than ships passing through the Canal.

Executive Order.

Amending Executive Order of September 25, 1925, Establishing Rules Governing Navigation of the Panama Canal and Adjacent Waters.

By virtue of the authority vested in me by the provisions of the Act of Congress approved August 21, 1916, entitled "An Act extending certain privileges of Canal employees to other officials on the Canal Zone, and authorizing the President to make rules and regulations affecting the health, sanitation, quarantine, taxation, public roads, self-propelled vehicles and police powers on the Canal Zone, and for other purposes, including provisions as to certain fees, money orders and interest deposits," I do hereby amend Rule 120 of the Executive Order of the President, dated September 25, 1925, relating to exclusion of undesirables, to read as follows:

"Rule 120. *Undesirable Persons.* The following classes of persons are hereby forbidden to enter or remain upon or pass over any part of the Canal Zone, and the Governor is hereby authorized, at his discretion, to deport any such persons when found in the Canal Zone: The insane or persons who have been insane within five years previous to their attempted entry into the Canal Zone, imbeciles or feeble-minded persons, epileptics, persons suffering from a loathsome or dangerous contagious disease, criminals, those who have been convicted of felony, paupers or professional beggars, persons of notoriously bad character, anarchists, those whose purpose it is to incite insurrection, and any other persons whose presence, in the judgment of the Governor, would be a menace to the public health or welfare of the Canal Zone, or whose presence would tend to create public disorder or obstruct the operation or maintenance of the Canal, or who are liable to become a public charge."

This order shall take effect from and after this date.

CALVIN COOLIDGE

THE WHITE HOUSE,
February 28, 1929.

[No. 5065]

Visit of Spanish Training Ship "Juan Sebastian Elcano."

With 31 midshipmen aboard, the *Juan Sebastian Elcano*, training ship for the Spanish Navy, arrived at Balboa on March 27, 1929, en route from San Francisco to Cadiz, Spain, via Habana and New York. The vessel is a 3,470-ton auxiliary motor ship of recent construction, and, in addition to the midshipmen, carries a crew of 160 men. She will transit the Canal on April 4th.

The present training cruise of the *Juan Sebastian Elcano* was started last August when the ship sailed from Cadiz, and has included visits to Cape Verde, Montevideo, Buenos Aires, Cape Town, Adelaide, Melbourne, Sydney, Suva, and San Francisco, her last port of call before arriving at Balboa.

Pacific Steam Navigation Company to Build New Ship.

The Pacific Steam Navigation Company is building a new combination passenger and cargo motor vessel of 18,000 tons, quadruple screw, for it's service between Europe and the west coast of South America, via the Panama Canal. The new vessel is to be of the same type as the Royal Mail liners *Asturias* and *Alcantara*, which are operated in the service between England and Buenos Aires, but will embody improved features as a result of the experience gained with the two vessels mentioned. It is stated that this addition to the fleet of "O" vessels which transit the Canal, will maintain a sea speed of 18 knots per hour.

Notice to Mariners.

Canal Zone—Colon Harbor—Dummy Mines Planted.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z. *April 3, 1929.*

No. 525.

Five dummy mines have been planted near the center of the explosive anchorage in Colon Harbor. The position of each mine is marked by a red can buoy. These dummy mines will remain in position for about six months.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending March 23, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
San Mateo	United Fruit Co	March 17	March 17	9	14
Cristobal	Panama R. R. S. S. Line		March 17		3,201
Wanks	Standard Fruit S. S. Co		March 17		4
Macabi	United Fruit Co	March 17	March 17	(1)	73
Ucayali	Peruvian Line		March 18		610
Parismina	United Fruit Co		March 18		97
Eemdijk	Holland-American Line		March 18		163
Ecuador	Panama Mail S. S. Co	March 17	March 18	366	503
Smyrna	North German Lloyd	March 17	March 18	50	186
Saale	North German Lloyd	March 17	March 18	4	65
Almagro	Pacific Steam Nav. Co	March 17	March 18	3	140
Minerva	Royal Netherlands S. S. Line	March 17	March 22	6	561
Teno	Chilean Line	March 18	March 18	48	6
Acajutla	Pacific Steam Nav. Co	March 19		1,124	
Murla	North German Lloyd	March 19	March 20	108	472
Cerigo	Hamburg-American Line	March 19	March 22	445	179
Magdalena	Hamburg-American Line	March 19	March 23	322	2,774
St. Joseph	J. Lund	March 19	March 21	1,892	(2)
Saramacca	United Fruit Co	March 19	March 21	1,291	175
Guatemala	Panama Mail S. S. Co	March 19	March 21	1,608	604
Linda S	R. Feuillebois	March 20	March 20	(1)	39
Saint Louis	French Line	March 20	March 21	690	29
Annie Johnson	Johnson S. S. Line	March 20	March 21	(1)	238
Bennekom	Royal Netherlands S. S. Co	March 20	March 20	29	(2)
Santa Marta	United Fruit Co	March 20	March 21	976	451
Coppename	United Fruit Co	March 20	March 21	826	128
Floreana	Colombian Transp. Co	March 20		345	
Mercian	Leyland S. S. Line	March 20	March 22	(1)	184
Santa Barbara	Grace Line	March 21	March 21	(1)	37½
Orcoma	Pacific Steam Nav. Co	March 21	March 22	97	114
Nebraska	Royal Mail S. P. Co	March 21	March 22	23	365
Flandre	French Line	March 21	March 22	334	431
Drechtdijk	Holland-American Line	March 21	March 22	(1)	529
Toloa	United Fruit Co	March 21	March 22	1,305	609
Caldas	National Navigation Co	March 21	March 23	189	424
Waunta	Standard Fruit S. S. Co	March 21	March 23	670	(2)
Iriona	United Fruit Co	March 22	March 23	9	529
Amapala	Standard Fruit S. S. Co	March 22	March 23	193	489
Palatia	Hamburg-American Line	March 22	March 23	287	119
Schwaben	North German Lloyd	March 22	March 23	(1)	65
Brielle	Royal Netherlands S. S. Co	March 22		557	
Visurgia	Panama Mail S. S. Co	March 22		222	
Wanks	Standard Fruit S. S. Co	March 23		156	
Notre Dame de Fourviere	French Line	March 23		190	
Cali	North German Lloyd	March 23		678	
Saramacca	United Fruit Co	March 23		20	
Santa Tecla	N. O. & S. A. S. S. Co	March 23		62	
Hollywood	McCormick S. S. Co	March 23		41	
Heredia	United Fruit Co	March 23		364	
Hamburg Maru	Osaka Shosen Kaisha	March 23		83	

(1) No cargo discharged. (2) No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending March 30, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons	*Tons.*
Ecuador	Panama Mail S. S. Co	March 18	March 19	32	2
Guatemala	Panama Mail S. S. Co	March 18	March 19	378	156
H. M. Storey	Standard Oil Co	March 20	March 21	15,460	
Ginyo Maru	Nippon Yusen Kaisha	March 20	March 20	5	56
Murla	North German Lloyd	March 21	March 21	506	
Santa Barbara	Grace Line	March 21	March 21	1	
Caldas	National Navigation Co	March 23	March 23		19
Floreana	Colombian Transp. Co	March 24	March 25		120
Anyo Maru	Nippon Yusen Kaisha	March 24	March 24	10	
Agwistar	N. Y. & Cuban Mail S. S. Co	March 25	March 26	19	
Lobos	Pacific Steam Nav. Co	March 26	March 26		50

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., April 10, 1929. No. 36.

Tanker Traffic Through the Panama Canal in March, 1929.

During the month of March, 1929, 96 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 521,563, on which tolls of $462,994.22 were collected. Cargo amounted to 531,659 tons. In point of net tonnage, tanker traffic showed an increase of 46.1 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage increased 98.6 per cent over the cargo tonnage of March, 1928.

Tank ships comprised 17.9 per cent of the total commercial transits through the Canal during the month; made up 20.3 per cent of the total Panama Canal net tonnage; were the source of 19.7 per cent of the total tolls collected; and carried 19.4 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of March, 1929, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals, for the two preceding months and for March, 1928:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	11	49,081	$40,355.02	28,257
Danzig	2	12,265	8,830.80	.....
Norwegian	8	40,412	30,662.94	9,000
Swedish	1	4,245	3,056.40	.....
United States	24	137,020	99,187.32	2,324
Totals, March, 1929	46	243,023	182,092.48	39,581
Totals, February, 1929	46	246,217	183,264.62	36,345
Totals, January, 1929	46	241,780	177,508.56	.....
Totals, March, 1928	40	215,806	157,510.16	11,115
Pacific to Atlantic.				
British	9	48,408	49,264.39	78,158
Danzig	2	13,815	13,271.25	24,454
Norwegian	4	19,837	21,362.50	37,643
Panaman	1	6,450	7,062.50	12,772
Swedish	2	10,792	11,278.75	20,188
United States	32	179,238	178,662.35	[1] 318,863
Totals, March, 1929	50	278,540	280,901.74	492,078
Totals, February, 1929	36	202,210	205,146.05	358,704
Totals, January, 1929	53	278,631	291,033.60	521,554
Totals, March, 1928	26	141,187	145,340.00	256,475

[1] Includes 6,500 tons of coconut oil.

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months, and for March, 1928:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
March, 1929	33	181,815	$130,979.85	
February, 1929	31	170,099	124,280.17	8,397
January, 1929	32	174,269	125,631.30	
March, 1928	30	171,037	123,146.64	
From Los Angeles.				
March, 1929	35	192,325	193,401.10	344,736
February, 1929	26	143,336	143,518.55	257,589
January, 1929	40	206,611	215,099.85	391,511
March, 1928	19	102,123	104,988.75	186,242

Traffic by Nationality for March, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of March, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with corresponding totals for March, 1928 and 1927.

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
British	75	402,673	294,604	482,238	295,943	$345,627.47	281,868
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,854
Colombian	6	2,887	2,508	4,210	2,570	3,116.50	5,064
Danish	2	6,857	5,017	8,350	5,127	6,271.25	11,148
Danzig	2	12,265	10,443	17,700	10,067	8,830.80	
Dutch	4	17,703	12,342	20,881	12,366	15,427.50	11,936
French	2	11,143	8,519	13,893	8,552	10,648.75	2,381
German	15	42,927	30,589	49,727	29,835	38,151.00	35,493
Greek	3	11,930	8,416	13,847	8,533	8,589.60	
Italian	3	19,829	14,042	24,837	15,122	16,030.62	3,784
Japanese	8	39,774	33,942	50,793	33,625	40,089.75	42,988
Norwegian	21	87,722	67,831	111,650	67,021	69,481.70	49,982
Panaman	2	7,500	5,397	8,847	5,451	5,254.59	2,163
Peruvian	2	2,506	1,073	3,465	1,599	1,341.25	761
Swedish	5	23,621	17,182	47,556	21,414	16,740.73	4,411
United States	115	571,809	443,599	715,796	443,684	502,843.42	387,108
Yugoslav	1	3,969	3,178	4,995	3,214	2,857.68	
Totals, March, 1929	267	1,269,820	962,148	1,586,095	968,099	1,095,635.11	841,941
Totals, March, 1928	289	1,315,708	1,014,987	1,644,988	1,017,251	1,129,332.95	743,747
Totals, March, 1927	270	1,283,218	1,005,773	1,632,344	1,007,192	1,097,072.80	791,570

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
British	71	385,680	294,544	479,293	295,256	$365,210.64	473,190
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	4,746
Colombian	6	1,544	1,473	2,388	1,485	1,523.06	1,313
Danish	2	7,951	4,751	7,912	4,839	5,938.75	13,750
Danzig	2	13,815	10,617	17,750	10,137	13,271.25	24,454
Dutch	8	42,892	31,713	52,192	31,058	39,641.25	64,153
French	4	19,362	14,914	24,366	14,858	18,642.50	29,293
German	20	69,185	49,050	80,970	48,154	60,429.84	80,357
Greek	4	15,728	10,153	16,226	10,165	12,691.25	29,861
Italian	4	24,748	19,049	31,367	19,247	23,582.30	28,280
Japanese	9	42,911	36,460	54,193	35,799	45,229.50	57,945
Norwegian	12	52,458	42,371	68,290	42,332	52,717.80	94,954
Panaman	2	9,053	7,033	12,591	8,245	8,791.25	15,445
Peruvian	2	3,934	2,472	5,460	2,683	3,071.05	4,038
Swedish	12	54,551	41,822	86,903	49,552	52,277.50	120,496
United States	108	540,234	425,925	685,648	423,818	532,023.75	841,652
Yugoslav	2	9,423	7,118	11,289	7,201	8,897.50	17,900
Totals, March, 1929	269	1,298,141	1,002,898	1,644,148	1,008,805	1,248,230.44	1,901,827
Totals, March, 1928	253	1,125,369	875,286	1,420,460	875,940	1,094,037.62	1,684,915
Totals, March, 1927	226	1,130,781	893,654	1,448,585	899,352	1,120,840.40	1,741,955

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British	146	788,353	589,148	961,531	591,199	$710,838.11	755,058
Chilean	2	9,377	6,899	14,620	7,952	8,623.75	7,600
Colombian	12	4,431	3,981	6,598	4,055	4,639.56	6,377
Danish	4	14,808	9,768	16,262	9,966	12,210.00	24,898
Danzig	4	26,080	21,060	35,450	20,204	22,102.05	24,454
Dutch	12	60,595	44,055	73,073	43,424	55,068.75	76,089
French	6	30,505	23,433	38,259	23,410	29,291.25	31,674
German	35	112,112	79,639	130,697	77,989	98,580.84	115,850
Greek	7	27,658	18,569	30,073	18,698	21,280.85	29,861
Italian	7	44,577	33,091	56,204	34,369	39,612.92	32,064
Japanese	17	82,685	70,402	104,986	69,424	85,319.25	100,933
Norwegian	33	140,180	110,202	179,940	109,353	122,199.50	144,936
Panaman	4	16,553	12,430	21,438	13,696	14,045.84	17,608
Peruvian	4	6,440	3,545	8,925	4,282	4,412.30	4,799
Swedish	17	78,172	59,004	134,459	70,966	69,018.23	124,907
United States	223	1,112,043	869,524	1,401,444	867,502	1,034,867.17	1,228,760
Yugoslav	3	13,392	10,296	16,284	10,415	11,755.18	17,900
Totals, March, 1929	536	2,567,961	1,965,046	3,230,243	1,976,904	2,343,865.55	2,743,768
Totals, March, 1928	542	2,441,077	1,890,273	3,065,448	1,893,191	2,223,370.57	2,428,662
Totals, March, 1927	496	2,413,999	1,899,427	3,080,929	1,906,544	2,217,913.20	2,533,525

Alhajuela Project Named "Madden."

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *April 2, 1929.*

TO ALL CONCERNED:

An extract from Public No. 843, 70th Congress—An Act Making appropriations for the military and nonmilitary activities of the War Department for the fiscal year ending June 30, 1930, and for other purposes—quoted below, is published for the information and guidance of all concerned.

H. BURGESS,
Governor.

* * * * * * *

That in recognition of the exceptionally distinguished services in Congress for nearly twenty-four years of Honorable Martin B. Madden, the late chairman of the Committee on Appropriations, and in appreciation of his active and efficient interest in the Panama Canal throughout its entire construction and operation, and in recently causing the commencement of the construction of said dam across the Chagres River at or near Alhajuela, the said dam and the lake created thereby and the entire plant and the road leading thereto shall hereafter be known and designated on the public records as the Madden Dam, lake, plant, and road.

* * * * * * *

Approved, February 28, 1929.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *April 5, 1929.*

No. 527.

The following was received by the Hydrographic Office through the Colon Radio:

Yacht *Utawana*, 4.45 p. m., April 4, 14 miles, 281° true from Colon Breakwater Light sighted two mast heads standing upright about 5 feet above water and 20 feet apart, apparently attached to small sunken vessel.
Approximate position: 9° 27′ north, 80° 08′ west.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 6, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net
Esparta	3-30	18.55	31	6.05	31	12.44	31	14.20	American	United Fruit Co	330.0	44.6	17.0	Port Limon, C. R.	San Francisco, Cal.	(7)	482	3,679	2,373
Nikola Mihanovic	30	23.00	31	6.35	31	14.11	31	15.45	Yugoslav	Baburizza & Co	400.6	52.3	17.6	Blyth, England	Arica, Chile	Ballast		5,826	3,969
Missourian [3]	31	6.15	31	8.30	31	15.09	31	16.50	American	Amer.-Hawaiian Line	462.0	60.0	20.6	Boston, Mass	Portland, Oreg	General	4,625	8,567	6,020
Acajutla	19	16.50	31	10.55	31	17.34	31	19.30	British	Pacific Steam Nav. Co	215.7	33.5	16.4	Cristobal, C. Z	Champerico, Guat.	General	1,125	1,273	706
Darden	31	18.10	4-1	6.25	4-1	16.06	4-1	17.20	American	T. P. Gallagher Co	391.9	51.2	19.6	New York, N. Y.	Yokohoma, Japan	Ballast		5,410	3,627
Pacific Spruce	31	20.28	1	7.30	1	15.13	1	16.35	American	Dimon S. S. Corp	410.5	54.0	21.2	New York, N. Y.	Seattle, Wash	General	5,863	6,624	4,757
Lunula [1]	4-1	00.45	1	8.15	1	16.59	1	18.30	British	Anglo-Saxon Pet. Co	420.0	54.0	17.6	Falmouth, England	Los Angeles, Calif.	Ballast		6,655	4,631
Munaires	1	1.10	1	9.40	1	17.47	1	23.57	American	Munson S. S. Line	370.0	53.1	24.1	Baltimore, Md	Tacoma, Wash	General	6,500	5,577	4,225
Steel Mariner	1	1.30	1	11.00	1	20.25	1	21.45	American	Isthmian S. S. Lines	424.2	56.2	26.8	Baltimore, Md	Seattle, Wash	Steel, general	8,347	7,611	5,450
Glentworth	1	6.08	1	12.10	1	21.16	1	22.25	British	Canadian Transp. Co	450.0	55.5	24.0	Nuevitas, Cuba	Shanghai, China	Sugar	7,000	7,999	5,867
Norfolk	1	7.50	1	13.50	1	22.10	1	23.12	British	Federal Steam Nav. Co	520.0	64.2	27.0	Liverpool, England	Auckland, N. Z.	General	6,109	12,963	9,291
Royal Prince	1	8.45	1	15.05	1	22.55	1	23.57	British	Prince Line, Ltd.	450.4	58.0	26.3	New York, N. Y.	Manila, P. I.	General	6,564	8,594	6,089
Steelmaker	1	9.10	1	16.20	2	1.33	2	2.56	American	Isthmian S. S. Lines	395.5	55.0	27.1	New York, N. Y.	Seattle, Wash	Steel, general	8,567	7,330	5,245
Britte	1	14.55	1	17.50	2	2.46	2	3.55	Swedish	Colombian Mar. Co.	256.0	39.6	13.4	New York, N. Y.	Buenaventura, Col.	General	380	1,714	1,078
Baron Belhaven	1	15.50	1	17.55	2	2.49	2	6.32	British	Trinder Andersen	435.2	57.3	26.8	Antwerp, Belgium	Auckland, N. Z.	(8)	8,327	7,289	5,087
Sciota [3]			1	17.45	2	1.33			American	U. S. Navy	149.3	30.0		Cristobal, C. Z	Balboa, C. Z				
Vino Tinto [4]			1		1	15.04			American	Stand. Fruit S. S. Co.				Cristobal, C. Z	Gatun, C. Z	Towing barges		7	7
No. 39 [5]			1		1	15.04			Honduran	Stand. Fruit S. S. Co.				Cristobal, C. Z	Gatun, C. Z	Ballast		18	18
No. 40 [5]			1		1	15.04			Honduran	Stand. Fruit S. S. Co.				Cristobal, C. Z	Gatun, C. Z	Ballast		18	18
Venezuela	3-31	18.20	2	6.10	2	13.20	3	00.31	American	Panama Mail S. S. Co.	380.0	48.7	22.8	New York, N. Y.	San Francisco, Cal.	General	2,634	6,033	4,353
Cauca [2]	29	9.10	2	6.00	2	18.10	2	22.50	Colombian	National Navigation Co.	107.2	22.0	9.0	Cristobal, C. Z	Buenaventura, Col.	General	275	238	163
Isis [2]	4-1	10.47	2	6.20	2	18.19	3	20.20	German	Hamburg-AmericanLine	376.0	51.0	20.0	Hamburg,Germany	Valparaiso, Chile	General	3,364	5,788	4,027
Vestalia	2	1.40	2	7.30	2	20.10	2	21.40	British	Du Pont de Nemours	423.0	56.0	18.0	Norfolk, Va	Iquique, Chile	Ballast		6,199	4,412
C. O. Stillman [1] [2]	2	2.35	2	8.45	2	21.10	2	22.50	British	International Pet. Co	565.0	75.6	23.0	New York, N. Y.	Los Angeles, Calif.	Ballast		16,780	9,885
Alvarado	1	00.30	2	9.35	2	20.23	2	21.40	British	Pacific Steam Nav. Co	303.0	43.0	18.0	New York, N. Y.	Salaverry, Peru	General	1,193½	2,844	1,748
Van	2	4.05	2	11.10	2	22.35	2	23.52	Belgian	Cia. Inter. de Comm. de Arm	460.4	58.0	19.0	Barry, England	Arica, Chile	Ballast		9,068	6,211
Willanglo	2	13.55	2	13.55	2	23.35			American	Quaker Line	409.5	54.2	21.8	Wilmington, Del.	Tacoma, Wash	General	5,557	6,510	4,827
Nontanan	2	14.45	2	15.15	3	00.22	3	2.49	American	Amer.-Hawaiian Line	404.0	53.0	20.0	Boston, Mass	Seattle, Wash	General	3,138	6,756	4,775
Los Angeles [2]	1	10.55	2	19.15	3	11.16	3	14.30	German	Hamburg-AmericanLine	432.3	59.0	27.0	Hamburg,Germany	Vancouver, B. C.	Bananas, general	7,488	8,454	6,344
Manhattan Island	2	19.10	2	20.20	3	4.05	3	5.01	American	Redwood Line	386.0	52.2	22.6	Mobile, Ala	San Francisco, Cal.	Sulphur, general	5,605	5,696	4,125
Colombo [6]	3-28	13.20	3	6.00	3	12.51			British	British Government	425.0	43.6	17.6	Aruba, D. W. I.	Esquimalt, B. C.	Ballast			
K. I. Luckenbach	4-3	00.20	3	8.05	3	15.05	3	16.10	American	Luckenbach Line	446.0	56.0	23.0	New York, N. Y.	Tacoma, Wash	General	4,502	8,552	6,236
Bravo [6]	2	17.40	3	9.40	3	17.48			Mexican	Mexican Government	246.0	32.10	10.6	Vera Cruz, Mexico	High Seas	Ballast			

[1] Tanker. [2] Motor ship. [3] Tug. [4] Launch. [5] Barge. [6] Cruiser. [7] Coffee, cocoa, and bananas. [8] Phosphate and basic slag.

Callabasas	3	8.00	3	9.27	3	17.45			American	Charles Nelson & Co.	289.0	44.0	3	18.6	Baltimore, Md.	Seattle, Wash.	General	2,300	
W. L. Steed [1]	2	22.30	3	10.05	3	18.34	3	20.20	American	American Oil Co.	416.8	56.1		21.11	Baltimore, Md.	Los Angeles, Calif.	Ballast		6,751	4,795
Warlaby	3	8.45	3	12.05	3	19.28	3	21.50	British	Sir. R. Ropner & Co.	390.0	55.0		15.6	Gibraltar	British Columbia	Ballast		5,908	4,257
Cellina [2]	3	4.50	3	13.05	3	20.20	3	21.50	Italian	Nav. Libera-Triestina	430.0	55.3		20.0	Trieste, Italy	Vancouver, B. C.	General	1,510	7,790	6,054
Trimountain [2]	3	8.55	3	14.30	3	23.58	4	1.08	American	B. L. Shipping Co.	435.0	56.2		26.0	Cardiff, England	San Francisco, Cal.	Creosote	8,436	6,728	4,734
Evanger	3	9.10	3	14.32	3	21.55	3	23.00	Norwegian	General S. S. Corp.	365.0	52.3		18.3	Buenos Aires, Arg.	Vancouver, B. C.	General	4,078	5,746	4,092
Nyhaug [2]	3	11.55	3	14.40	3	22.40	4	2.44	Norwegian	Scand.-So. Pacific Co.	350.7	51.5		23.0	Gothenburg, Swed.	Buenaventura, Col.	General	6,034	4,788	3,347
Wekika	3	12.00	3	16.20	4	00.38	4	1.38	American	Hammond S. S. Line	333.8	48.0		22.0	New York, N. Y.	Seattle, Wash.	Coal, general	4,316	4,112	2,847
Joseph Seep [2]	3	15.30	3	19.05	4	2.43	4	12.30	American	Standard Shipping Co.	429.0	59.0		19.0	Key West, Fla.	Talara, Peru	Ballast		7,825	5,616
Orita	3	13.05	4	6.10	4	13.44	4	16.00	British	Pacific Steam Nav. Co.	485.0	58.0		25.7	Liverpool, England	Valparaiso, Chile	General	5,473½	9,936	6,561
Santa Teresa	3	18.30	4	6.20	4	16.01	4	18.27	American	Grace Line	360.0	51.0		23.3	New York, N. Y.	Talcahuano, Chile	General	2,411	5,726	4,086
Eastern Belle	3	16.45	4	6.35	4	16.19	5	1.00	American	Amtorg Corporation	305.0	44.0		18.0	New York, N. Y.	Vladivostok, Rus.	General	600	3,265	2,187
Bethore	3	1.00	4	7.15	4	17.57	4	19.20	American	Ore Steamship Corp.	550.3	72.3		21.6	Norfolk, Va.	Cruz Grande, Chile	Ballast		15,476	4,354
Knute Nelson [3]	2	18.10	4	9.04	4	19.54	4	21.25	Norwegian	Fred Olsen & Co.	436.0	56.0		20.0	Trondhjem, Nor'ay	Vancouver, B. C.	General	3,980	8,016	5,854
All America [9]	3–28	7.50	4	10.45	4	20.10			American	All America Cables	280.0	37.0		17.6	Guantanamo, Cuba	Balboa, C. Z.	Cable equipment	387	1,919	875
Santa Veronica	4–4	18.15	4	19.05	5	13.03	5	18.28	American	Isthmian S. S. Line	251.0	43.0		20.0	Baltimore, Md.	Hilo, Hawaii	([11])	2,763	2,823	1,740
Cities Service Empire [1]	4	18.32	4	20.20	5	4.56	5	18.27	American	Tidewater Oil Co.	465.0	60.2		22.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		8,561	5,997
Gen. Morgan Lewis [3]			4	8.40	4	10.37			American	U. S. Army	150.0	28.0			Cristobal, C. Z.	Gatun, C. Z.				
Hope [4]			4	10.00	4	20.10			American	J. R. Powell					Cristobal, C. Z.	Balboa, C. Z.	Ballast		17	11
Swan [10]			4	10.00	5	17.38			American	C. R. Ford					Cristobal, C. Z.	Balboa, C. Z.	Ballast		31	18
President Hayes	5	6.03	5	8.48	5	15.30	5	21.20	American	Dollar Line	502.0	62.0		27.0	New York, N. Y.	San Francisco, Cal.	General	4,100	12,023	8,443
Salvador	3–27	22.00	5	9.40	5	17.38	5	19.35	British	Pacific Steam Nav. Co	215.0	33.5		16.8	Cristobal, C. Z.	Champerico, Guat.	General	1,082	1,270	735
Guayaquil	4–4	22.15	6	6.04	6	14.27	6	15.40	American	Panama R. R. S. S. Co.	251.0	43.6		18.4	New York, N. Y.	Guayaquil, Ecuad'r	General	756½	2,874	1,944
Manizales	2	20.50	6	6.12	6	14.33	6	15.40	German	North German Lloyd	216.5	32.9		15.0	Cristobal, C. Z	Buenaventura, Col.	General	662	1,132	741
Sumanco	5	1.05	6	7.10	6	16.54	6	17.54	American	Transmarine Line	324.0	46.2		16.0	Newark, N. J.	San Francisco, Cal.	General	1,933	3,984	2,628
Surailco	5	24.00	6	7.25	6	17.02	6	20.18	American	Transmarine Line	324.0	46.2		21.0	Newark, N. J.	Oakland, Calif.	General	2,504	3,984	2,628
Steelore	5	13.37	6	10.15	6	19.18	6	20.18	American	Ore Steamship Corp.	550.3	72.2		20.8	New York, N. Y.	Cruz Grande, Chile	Ballast		15,551	4,279
Aladdin [1]	6	5.50	6	11.30	6	20.16	6	21.25	American	Standard Transp. Co.	435.0	56.2		20.0	Boston, Mass.	Los Angeles, Calif.	Ballast		7,408	5,112
Tilthorn	6	6.40	6	12.50	6	21.04	6	22.16	Norwegian	Wessel, Duval & Co.	420.2	53.9		14.8	Pensacola, Fla.	Chile	Ballast		6,591	4,730
Elveric	6	8.05	6	14.10	6	22.34	6	23.42	British	Andrew Weir & Co.	400.0	53.0		26.0	New York, N. Y.	Nonai, Japan	General	7,290	6,277	4,497
Hadnot [1]	6	12.25	6	15.10	6	23.35	7	1.06	American	Cities Service Corp.	416.9	56.2		20.0	Charleston, S. C.	Los Angeles, Calif.	Ballast		6,706	4,639
St. Theresa	6	15.20	6	17.40	7	00.42	7	1.50	Norwegian	United Fruit Co.	293.0	44.2		16.0	Gulfport, Miss.	Pto. Armuelles, R. P.	Creosoted piles	2,997	2,629	1,716
Canadian Britisher	6	16.30	6	20.50	7	4.10	7	5.10	British	Can. Nat. Steamships.	400.0	52.0		23.4	Halifax, N. S.	Auckland, N. Z.	([12])	4,320	5,906	4,187
Gen. G. W. Getty [3]			6	6.15	6				American	U. S. Army	89.0	22.0			Cristobal, C. Z	Balboa, C. Z.				

[1] Tanker. [9] Cable ship. [10] Yacht. [11] Sulphate, tinplate, steel, and general. [12] Steel, motors, and paper.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Charles H. Cramp	31	1.30	31	2.01	31	10.20	31	10.20	American	Argonaut S. S. Co.	404.6	53.9		25.6	Everett, Wash.	Baltimore, Md.	Lumber	5,887	6,755	4,750
Paul Shoup [1]	30	13.30	31	5.25	31	13.20	31	13.20	American	Associated Oil Co.	424.4	58.2		25.6	San Francisco, Cal.	New York, N. Y.	Gasoline	8,253	7,333	5,182
Surico	31	21.50	31	22.50	4–1	9.10	4–1	9.10	American	Transmarine Lines	324.0	46.2		23.0	Vancouver, B. C.	Port Newark, N. J.	Lumber	3,789	3,984	2,628
Pacific	31	22.20	31	23.30	1	9.15	1	9.15	Danish	Overseas Trad. Co., Ltd	378.0	52.2		26.0	Port Alberni, B. C.	Boston, Mass.	Lumber	6,365	5,782	4,598
City of Dalhart [3]	4–1	1.00	4–1	1.46	1	10.18	1	15.10	American	Roosevelt S. S. Co., S. B.	419.0	54.2		26.0	Adelaide, Australia	Baltimore, Md.	([13])	7,250	7,079	5,268

[1] Tanker. [13] Ore, wool, copper, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Dusan Silni	1	1 30	1	2 36	1	12.00	1	12.55	Yugoslav	Barburizza & Co.	421.0	55.1	25.0	Iquique, Chile	Azores [17]	Nitrates	8,250	6,429	4,379
Dio	1	3.00	1	3.58	1	13.50	1	13.50	American	Redwood Line	373.9	51 6	23.0	San Francisco, Cal.	New York, N. Y.	Sugar, general	6,887	5,708	4,131
El Salvador	3-31	6.30	1	4.50	1	12.45	2	15.00	American	Panama Mail S. S. Co.	360 2	51.6	23 0	San Francisco, Cal.	New York, N. Y.	Coffee, general	2,038	5,710	4,023
Hilda Knudsen [1]	31	16.05	1	5.41	1	15.00	1	15.00	Norwegian	K. Knutsen & Co	470.3	64 5	27.2	Los Angeles, Calif.	London, England	Gasoline	12,319	9,474	6,489
Stockton [1]	31	21.00	1	6.25	1	18.00	1	18 00	American	Gladstone Transp. Co.	425.8	57.0	29.6	Los Angeles, Calif.	Baltimore, Md.	Crude oil	10,400	7,485	5,180
Sciota [11]			1	6 33	1	15.00	1	17 45	American	U. S. Navy	155 0	30 0		Balboa, C. Z	Cristobal, C. Z	Towing barge			
Essequibo	4-1	4 10	1	7.45	1	16.40	1	23 00	British	Pacific Steam Nav. Co	450 0	57.8	25.0	Talcahuano, Chile	New York, N. Y.	Nitrates	3,928	9,158	6,176
Sangro [11]	3-2	19 36	1	8 22	1	19 55	2	11 05	Italian	Italian Line	397 0	55 0	21 4	Balboa C. Z.	New Orleans, La.	Ballast			
Holland Maru	4 1	14.05	1	14.48	1	23 20	2	1 25	Japanese	Kawasaki Kisen Kaisha	385 0	51.0	25 8	Vancouver, B. C.	Europe	Wheat	7,667	5,926	4,434
El Lobo [1]	1	14.30	1	15 36	1	23.50	2	4 10	British	C. T. Bowring & Co.	285 0	51.0	23 4	La Libertad, Ecu'dr	Philadelphia, Pa.	Crude oil	6,141	4,851	33.26
Pacific Redwood	1	20 30	2	1 19	2	10.15	2	10 45	American	Dimon S. S. Corp	409 9	54.2	24 0	Olympia, Wash.	New York, N. Y.	Lumber	7,611	6,537	4,841
Trontolite [11]	1	21 10	2	2 23	2	11.25	2	11 25	British	Imperial Oil Co., Ltd	420 8	57 1	27.3	Talara, Peru	Halifax, N. S.	Crude petroleum	8,800	7,226	4,649
Laurel Branch	1	22 30	2	4.04	2	12 45	2	14 20	British	F. & W. Ritson	300 2	46.0	23 0	Tocopilla, Chile	Liverpool, England	General	5,047	4,142	3,047
Hazelside	1	23 20	2	4.47	2	13.35	2	16.35	British	Charlton S. S. Co.	395 0	52.7	23.6	Portland Oreg.	Europe	Wheat	7,280	5,676	4,200
Herakles	1	17.45	2	5.29	2	15.20	2	16 35	Norwegian	Bruusgaard Line	389 8	54 1	24 8	San Francisco, Cal.	Liverpool, England	General	8,010	5,680	4,220
Moveria	2	2 15	2	6.36	2	16.10	2	16.10	British	Donaldson Line	385 6	51 6	27.6	Vancouver, B. C.	London, England	General	5,895	6,576	4,724
Virginia	1	11 00	2	8.07	2	15.25	2	15 55	American	Panama-Pacific Line	586 4	80 3	27 0	San Francisco, Cal.	New York, N. Y.	Drugs, general	3,633	25.254	18.170
Wiegand	2	6 00	2	8 47	2	17.50	3	15 40	German	North German Lloyd	363 2	54 3		San Antonio, Chile.	Hamburg, Germany	General	7,772	6,573	4,629
San Zotico [11]	2	6 55	2	9.31	2	19.15	2	23 05	British	Anglo-Mexican Pet. Co.	400 2	52 3	21 0	Antofagasta, Chile	Aruba, D. W. I.	Ballast		6,033	3,982
La Perla	2	8 00	2	9.57	2	18.50			American	United Fruit Co	325 2	48 1	21 3	San Francisco, Cal.	Port Limon, C. R.	General	836	4,033	2,261
Texan	2	6 42	2	10 45	2	20.20	2	20.20	American	Amer.-Hawaiian Line	471 0	57 2	28 6	Portland, Oreg	Boston, Mass	General	9,295	9,154	6,966
Manizales	2	7.30	2	11.09	2	20.50			German	Roland Line	210 0	33 0	14 6	Guayaquil, Ecad'r.	Cristobal, C. Z.	General	831	1,132	741
Binta [11] [16]	2	3.30	2	12 57	2	21.45	3	1.05	Norwegian	Anglo-Saxon Pet. Co.	396.4	55.0	25.6	San Francisco, Cal.	Land's End, Eng.	Kerosene	8,263	6,188	4,091
Mojave [1]	2	11 55	2	14.52	2	23.55	2	23.55	American	Gen'l Petroleum Corp.	435 0	56.2	28.0	Los Angeles, Calif.	New York, N. Y.	Gas oil	10,159	7,433	5,098
Andrea F. Luckenbach	2	18.30	3	00.02	3	9.05	3	9.05	American	Luckenbach Line	496 0	68 2	30.0	Portland, Oreg	Boston, Mass.	General	13,126	11,487	8,762
Heathfield	3	00 05	3	2 49	3	10.35	3	12.55	British	Woods, Taylor & Brown	400.0	52 3	24 2	Vancouver, B. C.	Aarhus, Denmark	Wheat	7,180	5,408	4,045
Bohemian Club [1]	2	21.30	3	4.06	3	11.45	3	12.40	American	Atlantic Refining Co.	425 0	57.2	27.6	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,363	7,204	4,739
Oilfield [1]	2	22.00	3	5.11	3	13.40	3	17.05	British	Hunting & Son	365.2	51 3	26.6	Los Angeles, Calif.	Le Havre, France	Gasoline	6,665	5,485	3,700
Santore	3	4.15	3	6.25	3	14.25	3	14.25	American	Ore S. S. Corp	450.0	57 0	28.3	Cruz Grande, Chile	Baltimore, Md.	Iron ore	11,220	7,808	5,139
Canada [16]	3	4.35	3	8.32	3	16.32	3	22.55	Swedish	Johnson Line	426.9	56 2	26.0	Vancouver, B. C.	Gothenburg, Swed.	([18])	7,211	7,476	5,485
Plow City	3	10.00	3	10.24	3	18.55	3	18.55	American	Charles Nelson & Co.	324.0	46.3	23.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	4,280	3,983	2,631
Saxonstar	3	9.30	3	12.11	3	20.15	4	6.15	British	Blue Star Line	420.0	54.0	24.0	New Westminster	Newcastle, England	Frozen, general	3,000	7,380	5,453
Dinteldijk [16]	3	11.37	3	12.43	3	21.00			Dutch	Holland-American Lne	485.6	62.0	27.5	Vancouver, B. C.	Rotterdam, Holland	General	8,491	10,786	7,551
El Ciervo [1]	3	15.35	4	1.58	4	10.15	4	10.15	British	C. T. Bowring & Co.	407.4	52.2	25.7	La Libertad, Ecua.	Philadelphia, Pa.	Crude oil	7,798	6,046	4,326
Castle Town	3	17.30	4	2.09	4	11.30	4	11.30	American	Charles Nelson & Co.	321.7	50.0	21.6	South Bend, Wash.	Philadelphia, Pa.	Lumber	3,920	3,872	2,568
Texas	3	17 30	4	3.01	4	13.00	4	21.10	French	French Line	409.8	52.5	25.6	Vancouver, B. C.	Le Havre, France	General	7,329	6,824	4,885

[1] Tanker. [11] Tug. [15] South for dry-docking only. [16] Motor ship. [17] For orders. [18] Wheat, coffee and general.

Franklin K. Lane [1]	4	2.15	4	4.05	4	13.45	4	13.45	American	Pan.-Amer.Pet.&Tr.Co.	435.0	56.2	26.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,567	7,405	5,131
Sidney M. Hauptman	4	3.15	4	4.40	4	15.10	4	15.10	American	McCormick S. S. Co.	401.4	53.2	27.4	Seattle, Wash	Baltimore, Md.	Lumber, general.	7,990	7,082	5,167
Annam [16]	4	6.05	4	7.30	4	16.25	4	16.25	Swedish	East Asiatic Co.	410.0	55.0	28.4	San Francisco, Cal.	Copenhagen, Den.	([21])	9,491	7,067	5,280
Floreana [16]	4	2.45	4	7.18	4	17.00			Colombian	Colombian Transp. Co.	150.0	27.2	7.0	Pto.Armuelles,R.P.	Cristobal, C. Z.	Ballast		410	307
Vision [19]	3–25	18.50	4	7.18	4	18.00	6	15 50	American	F. E. Pernot	46.2	12.2	6.6	San Diego, Calif.	Cristobal, C. Z.	Ballast		15	7
Juan Sebastian de Elcano	27	1 30	4	8.30	4	17 55	4	17 55	Spanish	Spanish Government	269.6	28 6	17 0	Cadiz, Spain	Habana, Cuba	([22])			3,437
Corinto	4–4	6 30	4	8 32	4	17 00			American	Panama Mail S. S. Co.	261.0	40 0	17 0	San Francisco, Cal.	Cristobal, C. Z.	([23])	1,550	2,352	1,549
Baralt	4	9 40	4	10 25	4	19.15	7	10 15	Dutch	Royal Neth. S. S. Co.	202 0	33.1	12 0	Guayaquil,Ecuador	Cristobal, C. Z.	General	490	1,183	742
Ionic	4	2.17	4	12.12	4	20 20	5	00 15	British	Shaw, Savill & Albion.	500.3	63.3	24.0	Wellington, N. Z.	London, England	General	4,117	12.872	9,577
Zacharioula	4	12.10	4	12.51	4	23 15	5	1.05	Greek	G. Z. Lykiardopulo	390 0	50 0	25 4	Iquique, Chile.	Azores [17]	Nitrates	7,050	6,006	4,287
Port Melbourne	4	14 45	4	18 42	5	9 16	5	12 25	British	Com'lth & Dom. Line.	501.3	63 3	28 0	Auckland, N. Z	London, England	Frozen, general.	8,367	11,861	9,065
Nyanza	4	16 40	4	19 47	5	9 20	5	12 00	British	Wessel, Duval & Co.	402.7	52 2	24 9	Antofagasta, Chile.	Charleston, S. C.	Nitrates	7,721	5,583	4,073
Port Pirie	4	19 15	4	20 55	5	10 45	5	13 45	British	Com'lth & Dom. Line.	470.1	59.4	27 0	N. Plymouth, N. Z.	London, England	General	6,954	9,381	6,915
Borga [16]	4	20 15	5	1 04	5	11 11	5	18 55	Norwegian.	Fred Olsen & Co.	362 4	51 4	24 6	Vancouver, B. C.	London, England	General	5,750	5,242	3,706
Madras City	5	3 55	5	6 36	5	14 10	5	14 10	British	Sir W. R. Smith & Sons	383 9	53 5	24 0	Vancouver, B. C.	Chatham, England	Wheat, lumber.	7,055	5,914	4,377
Gen. G. W. Getty [20]			5	6 24	5	14 10			American	U. S. Army	98 0	22.0		Balboa, C. Z	Cristobal, C. Z				
Canadian Importer	5	4 45	5	7 09	5	15 15	5	17 05	British	Can. Nat.Steamships.	400.5	52 4	25 0	Vancouver, B. C.	Montreal, Canada	Lumber	6,205	5.891	4,186
Hawaiian	5	5 00	5	7 30	5	15 35	5	15 35	American	Amer.-Hawaiian Line	404 6	53 9	25 2	Seattle, Wash	Boston, Mass	General	7,228	6,766	4,767
Denderah	5	4 15	5	9 18	5	17 50	5	19.40	German	Hamburg-AmericanLine	360 6	51.1	22 6	Valparaiso, Chile	Baltimore, Md	Nitrates	6,096	4,924	3,524
Cape Comorin	5	6 50	5	9 36	5	19 35	5	21 36	British	Lyle Shipping Co.	400 0	53 6	25 6	Tocopilla, Chile.	Wilmington, N. C	Nitrates	8,150	6,246	4,499
Point Montara	5	9 15	5	9 53	5	19 10	5	19 16	American	Gulf-Pacific Line.	324 0	46 2	22 0	Vancouver, B. C.	New Orleans, La	General	3,193	3.984	2,612
Rialto [16]	5	18 00	5	18 54	6	9 22	6	14 30	Italian	Nav. Libera-Triestina	336 6	55 4	26 7	Vancouver, B. C.	Trieste, Italy	General		7,789	6,025
Barneveld	5	19 50	5	21 31	6	11 00	6	15 52	Dutch	Royal Neth. S. S. Co.	400 9	58 2	26 0	Corral, Chile	Hamburg,Germany	General	8,177	7,820	5,980
Lena Luckenbach	5	21 35	5	23 06	6	11 35	6	11 35	American	Luckenbach Line	425 0	53 8	29 0	Los Angeles, Calif.	Boston, Mass	General	8,186	7,217	5,295
Sir James Clark Ross	5	23 30	6	1 18	6	13 03	6	17 05	Norwegian.	Rasmussen & Konow.	470 2	58.4	26 7	Steward Island	New York, N. Y.	Whale oil.	8,166	9,094	6,155
Induna	6	2 45	6	3 33	6	13 35	6	13 35	British	Wessel, Duval & Co.	402.0	52 2	24 6	Iquique, Chile.	Wilmington, N. C	Nitrates	7,700	5,634	4,172
Kuma Maru	5	10 30	6	6 24	6	15 15	6	19 25	Japanese	Nippon Yusen Kaisha.	405.0	53.0	25 8	Manila, P. I.	New York, N. Y	Sugar, general.	7,148		
Jakob Maersk	6	7 00	6	8 10	6	16 50	6	21 15	Danish	Isbrandtsen Moller & Co.	284.9	42.4	18.0	Anacortes, Wash.	Tampico, Mexico	Lumber	2,433	2,460	1,716
Condor	6	7 00	6	8 37	6	18 05	6	18 05	Chilean	R. W. James Co.	365.4	45.0	26.0	Valparaiso, Chile	New York, N. Y.	Nitrates	4,711	4.421	3,063
Curaca	6	7 45	6	10 04	6	20 09	7	1.16	Panaman	Grace Line	403.0	52 4	29.6	Tocopilla, Chile	Savannah, Ga	Nitrates	8,832	6,804	4,897
Marore	6	9 45	6	10 39	6	21 20	6	21.20	American	Ore S. S. Corp.	550.3	72.2	34.0	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,161	15,551	4,297

[1] Tanker. [16] Yacht. [20] Tug. [21] Barley, wheat, and lumber. [22] Training ship. [23] Coffee, logs, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
March 31	Cartago	United Fruit Co	New Orleans via Habana.
March 31	No. 9664 [24]	Pan-American Airways	U. S. A. via wayports.
March 31	No. 9685 [24]	Pan-American Airways	U. S. A. via wayports.

* DEPARTURES.

Date.	Vessel.	Line.	For—
March 31	Wanks	Standard Fruit S. S. Co.	San Blas, R. P.
March 31	Ancon	Panama R. R. S. S. Line	New York via Haiti.
April 1	Cartago	United Fruit Co.	New Orleans via wayports

[24] Airplane mail carrier.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 1	Anachucuna [25]	United Fruit Co	Colon, R. P.	April 1	Inapaquina [25]	United Fruit Co	Colon, R. P.
April 1	Inapaquina [25]	United Fruit Co	Colon, R. P.	April 1	Anachucuna [25]	United Fruit Co	Colon, R. P.
April 1	Annetta I [25]	United Fruit Co	Colon, R. P.	April 1	Annetta I [25]	United Fruit Co	Colon, R. P.
April 1	Perou	French Line	St. Nazaire via wayports.	April 2	Linda S. [28]	A. L. Surgeon	Bluefields, Nicaragua.
April 2	Linda S [28]	A. L. Surgeon	Colon, R. P.	April 2	No. 9664 [26]	Pan-American Airways	Tela, Honduras.
April 2	Marques de Comillas	Spanish Steamship Line	Barcelona via wayports.	April 3	Perou	French Line	Havre via wayports.
April 2	Swiftwind	Eastern Shell Oil Co	Curacao, D. W. I.	April 3	Reliance	Hamburg-American Line	New York, N. Y.
April 3	Iriona	United Fruit Co	New Orleans, La.	April 3	Mayan	Gulf-Caribbean S. S. Line	Maracaibo via wayports.
April 3	Reliance	Hamburg-American Line	New York via wayports.	April 4	Inapaquina [25]	United Fruit Co	Colon, R. P.
April 3	Sixaola	United Fruit Co	New York via Kingston.	April 4	Cundinamarca No. 33 [26]	Scadta Airplane Co	Barranquilla, Colombia.
April 3	Mayan	Gulf Caribbean S. S. Line	New Orleans, La.	April 4	Iriona	United Fruit Co	Puerto Colombia.
April 3	Cundinamarca No. 33 [26]	Scadta Airplane Co	Barranquilla, Columbia.	April 4	No. 9685 [26]	Pan-American Airways	Tela via wayports.
April 3	Annetta I [25]	A. Tagaropulos	Colon, R. P.	April 4	Sixaola	United Fruit Co	New York via wayports.
April 3	Inapaquina [25]	United Fruit Co	Colon, R. P.	April 4	Utowana [27]	A. Armour	Port Limon, Costa Rica.
April 4	Pastores	United Fruit Co	New York via wayports.	April 4	Annetta I [25]	A. Tagaropulos	Colon, R. P.
April 4	No. 9726 [26]	Pan-American Airways	David, R. P.	April 5	Anachucuna [25]	United Fruit Co	Colon, R. P.
April 4	No. 9664 [26]	Pan-American Airways	David, R. P.	April 5	Annetta I [25]	United Fruit Co	Colon, R. P.
April 4	Camden	United Fruit Co	Curacao, D. W. I.	April 5	Pastores	United Fruit Co	New York via Habana.
April 5	Surinamе	United Fruit Co	Port Limon, Costa Rica.	April 5	Novian	Leyland Line	Curacao via Cartagena.
April 5	Amapala	Standard Fruit S. S. Co.	New Orleans via wayports.	April 5	Surinamе	United Fruit Co	New Orleans via wayports.
April 5	Trigonia	Anglo-Saxon Petroleum Co	Curacao, D. W. I.	April 6	Amapala	Standard Fruit S. S. Co.	New Orleans via wayports.
April 5	Wanks	Standard Fruit S. S. Co.	San Blas, R. P.	April 6	Marques de Comillas	Spanish Steamship Line	Barcelona via wayports.
April 5	Anachucuna [25]	United Fruit Co	Colon, R. P.	April 6	Camden	United Fruit Co	Curacao, D. W. I.
April 5	Annetta I [25]	A. Tagaropulos	Colon, R. P.	April 6	No. 9664 [26]	Pan-American Airways	Tela via wayports.
April 6	Mayari	United Fruit Co	New York via wayports.	April 6	Mayari	United Fruit Co	New York, N. Y.
April 6	J. A. Moffett, Jr.	Standard Shipping Co	Baton Rouge, La.				
April 6	Peursum	Royal Netherlands S. S. Co.	Amsterdam via wayports.				
April 6	Parismina	United Fruit Co	New Orleans via Habana.				
April 6	Rugia	Hamburg-American Line	Hamburg via wayports.				
April 6	No. 9685 [26]	Pan-American Airways	Tela via wayports.				

[25] Motor boat. [26] Airplane mail carrier. [27] Yacht. [28] Motor schooner.

PORT OF BALBOA.

April 2	Durazzo	Hamburg-American Line	Puntarenas, Costa Rica.	April 4	Durazzo	Hamburg-American Line	Puntarenas, Costa Rica.
April 6	San Luis [29]	Chiriqui Land Co	Pto. Armuelles, R. P.				

[29] Motor schooner.

* Other than ships passing through the Canal.

Commercial Traffic Through the Panama Canal in March, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of March, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for March, 1928 and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	79	409,734	316,088	511,926	318,178	$355,050.39	278,686
East coast of United States to west coast of South America:							
British	6	26,356	20,073	34,488	21,733	22,023.48	11,378
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,854
German	1	1,167	998	1,428	813	1,247.50	567
Japanese	1	4,665	4,268	5,831	4,227	3,358.80	.....
Norwegian	2	5,958	4,209	6,857	4,165	4,800.20	1,000
Panaman	1	4,897	4,014	6,886	4,067	3,525.84	.....
Swedish	2	8,917	7,486	11,676	8,762	6,420.24	.....
United States	14	61,198	48,920	81,275	48,495	49,554.28	25,291
Totals	28	117,863	93,434	174,251	96,238	95,262.84	41,090
Europe to west coast of United States:							
British	7	30,821	24,293	40,210	24,265	23,850.24	1,853
Danzig	1	6,338	5,236	8,956	5,041	4,563.36	.....
Italian	1	4,421	3,764	6,107	3,883	3,183.12	.....
Norwegian	9	46,754	39,563	65,590	39,091	37,384.63	15,148
Swedish	3	14,704	9,696	16,880	12,652	10,320.49	4,411
Totals	21	103,038	82,552	137,743	84,932	79,301.84	21,412
Europe to west coast of South America:							
British	7	38,734	31,058	50,851	31,390	37,303.47	23,122
Danzig	1	5,927	5,207	8,744	5,026	4,267.44	.....
Dutch	2	10,895	7,185	12,446	7,244	8,981.25	9,615
German	4	18,088	11,984	19,722	11,960	14,980.00	19,035
Greek	2	8,769	6,172	10,245	6,281	6,313.68	.....
Italian	1	9,373	5,223	11,669	6,779	6,528.75	1,963
Norwegian	2	10,107	7,807	12,884	7,552	7,442.89	6,255
Peruvian	1	101	84	160	85	105.00	150
Yugoslav	1	3,969	3,178	4,995	3,214	2,857.68	.....
Totals	21	105,963	77,898	131,716	79,531	88,780.16	60,140
East coast of United States to Far East:							
British	9	47,028	30,655	49,543	30,499	38,318.75	63,114
Japanese	4	20,507	16,785	25,958	16,498	20,981.25	25,423
Norwegian	2	9,240	4,959	8,415	4,972	6,198.75	13,825
United States	4	22,173	16,663	23,931	15,609	20,828.75	30,109
Totals	19	98,948	69,062	107,847	67,578	86,327.50	132,471
Europe to west coast Canada:							
British	11	64,452	44,182	70,225	42,432	48,378.96	9,485
Dutch	1	6,066	4,863	7,655	4,799	6,078.75	2,173
French	2	11,143	8,519	13,893	8,552	10,648.75	2,381
German	2	13,576	9,437	15,371	9,316	11,796.25	5,824
Italian	1	6,035	5,055	7,061	4,460	6,318.75	1,821
Norwegian	1	4,232	2,712	4,342	2,726	3,390.00	6,900
Totals	18	105,504	74,768	118,547	72,285	86,611.46	28,584
East coast of United States to Australasia:							
British	9	49,793	34,609	55,599	34,841	43,261.25	47,210
United States	3	14,875	11,190	17,800	11,038	13,987.50	6,969
Totals	12	64,668	45,799	73,399	45,879	57,248.75	54,179

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Cristobal, C. Z., to west coast of South America:							
Colombian	4	1,074	1,007	1,750	1,011	$1,249.35	2,007
Dutch	1	742	294	780	323	367.50	148
German	4	3,148	2,361	4,217	2,394	2,951.25	1,813
Peruvian	1	2,405	989	3,305	1,514	1,236.25	611
Totals	10	7,369	4,651	10,052	5,242	5,804.35	4,579
Cristobal, C. Z., to west coast of Central America:							
British	3	2,063	1,900	3,436	1,906	2,353.80	3,032
Colombian	1	307	302	405	308	368.40	430
German	1	855	722	1,306	717	902.50	2,200
Norwegian	1	504	423	732	391	528.75	800
United States	1	1,459	1,308	2,141	1,281	1,635.00	1,467
Totals	7	5,188	4,655	8,020	4,603	5,788.55	7,929
Europe to Australasia:							
British	7	65,454	47,177	77,406	48,404	58,971.25	52,343
East coast of United States to Philippine Islands:							
British	2	12,282	6,861	12,036	6,750	8,576.25	10,864
Danish	2	6,857	5,017	8,350	5,127	6,271.25	11,148
United States	2	11,810	10,169	14,498	10,076	12,711.25	14,249
Totals	6	30,949	22,047	34,884	21,953	27,558.75	36,261
East coast of Central America to west coast United States:							
United States	5	11,409	10,131	16,319	9,977	12,663.75	2,618
Europe to west coast Central America:							
German	2	4,471	3,493	5,771	3,508	4,327.10	4,160
Norwegian	2	5,070	4,408	6,457	4,340	5,510.00	3,200
Totals	4	9,541	7,901	12,228	7,848	9,837.10	7,360
East coast of Canada to Australasia:							
British	4	20,046	16,063	26,312	16,220	20,078.75	15,328
East coast of South America to west coast United States:							
Norwegian	1	4,723	2,728	4,624	2,765	3,410.00	2,854
United States	2	10,079	7,059	11,118	7,058	8,823.75	10,482
Totals	3	14,802	9,787	15,742	9,823	12,233.75	13,336
East coast of United States to west coast Canada:							
United States	3	10,044	7,498	12,127	7,457	9,372.50	9,510
Foreign vessels in ballast—U. S. intercoastal:							
British	2	9,458	7,013	11,375	7,040	6,827.76	.....
West Indies to west coast of South America:							
British	2	8,237	7,120	11,676	7,034	8,900.00	16,185
Around the world:							
United States	2	19,028	14,573	24,661	14,515	18,216.25	7,727
Canadian intercoastal:							
British	1	4,186	3,322	5,439	3,336	4,152.50	1,381
East coast of Canada to west coast South America:							
British	1	7,648	6,391	11,410	6,711	5,506.56	.....
East coast of Canada to Far East:							
Japanese	1	4,381	4,361	5,873	4,254	5,257.20	6,772
Central American intercoastal:							
Norwegian	1	1,134	1,022	1,749	1,019	816.48	.....
East coast Central America to Australasia:							
British	1	3,163	3,224	3,721	2,257	3,795.60	4,701
East coast of Central America to Far East:							
Japanese	1	4,400	4,358	5,864	4,259	5,280.00	6,705
East coast of South America to west coast Canada:							
British	1	5,278	4,678	8,932	5,144	5,847.50	12,072
South American intercoastal:							
German	1	1,622	1,594	1,912	1,127	1,946.40	1,894

ATLANTIC TO PACIFIC.—Continued

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
East coast of South America to to Far East:							
Japanese	1	5,821	4,170	7,267	4,387	$5,212.50	4,088
Cristobal, C. Z., to west coast of United States:							
Panaman	1	2,603	1,383	2,461	1,384	1,728.75	2,163
West Indies to west coast of United States:							
British	1	3,623	2,790	4,330	2,893	3,487.50	3,000
West Indies to west coast of Central America:							
Colombian	1	1,506	1,199	2,055	1,251	1,498.75	2,627
West Indies to Australasia:							
British	1	4,051	3,195	5,249	3,178	3,993.75	6,800
Africa to west coast of South America:							
Greek	1	3,161	2,244	3,602	2,252	2,275.92	
Grand totals, March, 1929	267	1,269,820	962,148	1,586,095	968,099	1,095,635.11	841,941
Grand totals, March, 1928	289	1,315,708	1,014,987	1,644,988	1,017,251	1,129,332.95	743,747
Grand totals, March, 1927	270	1,283,218	1,005,773	1,632,344	1,007,192	1,097,072.80	791,570

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	80	422,902	328,101	528,018	326,792	$410,032.35	629,097
West coast of South America to east coast United States:							
British	11	47,617	37,405	64,626	38,965	45,756.25	77,937
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	4,746
Danish	2	7,951	4,751	7,912	4,839	5,938.75	13,750
Danzig	1	7,888	5,410	9,006	5,111	6,762.50	13,200
German	1	1,167	998	1,428	813	1,247.50	478
Italian	1	4,849	4,250	6,749	4,261	5,312.50	7,997
Japanese	2	8,851	7,639	11,276	7,608	9,548.75	15,747
Norwegian	2	9,949	9,312	13,624	9,353	11,394.05	19,803
Peruvian	1	1,529	1,483	2,155	1,169	1,834.80	2,020
Swedish	3	10,430	8,793	32,276	9,816	10,991.25	43,967
United States	14	61,281	49,730	85,211	49,204	61,956.95	136,330
Totals	39	166,184	133,204	241,573	135,115	166,034.55	335,975
West coast Canada to Europe:							
British	22	111,899	82,135	129,409	80,351	102,668.75	164,875
Dutch	4	24,931	19,510	31,773	19,289	24,387.50	36,678
French	2	9,895	7,388	12,287	7,385	9,235.00	14,478
German	4	22,771	15,123	25,144	15,324	18,903.75	30,743
Italian	1	6,041	5,092	7,057	4,455	6,365.00	9,000
Japanese	3	13,598	13,124	17,541	12,800	16,059.50	22,842
Norwegian	1	5,637	4,509	7,116	4,493	5,636.25	8,875
Swedish	2	9,905	7,357	11,899	9,049	9,196.25	18,303
Totals	39	204,677	154,238	242,226	153,146	192,452.00	305,794
West coast of South America to Europe:							
British	5	42,159	32,228	54,948	33,922	40,285.00	34,865
Danzig	1	5,927	5,207	8,744	5,026	6,508.75	11,254
Dutch	3	17,219	11,909	19,639	11,446	14,886.25	27,016
French	1	4,166	3,315	5,407	3,309	4,143.75	6,695
German	4	20,631	15,248	24,197	14,748	19,060.00	28,208
Greek	4	15,728	10,153	16,226	10,165	12,691.25	29,861
Italian	2	13,858	9,707	17,561	10,531	11,904.80	11,283
Norwegian	3	12,949	10,042	16,251	10,032	12,552.50	22,815
Swedish	2	7,759	6,171	10,110	6,486	7,713.75	15,309
Yugoslav	2	9,423	7,118	11,289	7,201	8,897.50	17,900
Totals	27	149,819	111,098	184,372	112,866	138,643.55	205,206
West coast of United States to Europe:							
British	7	31,667	25,972	42,037	25,617	32,465.00	50,288
French	1	5,301	4,211	6,672	4,164	5,263.75	8,120
German	2	11,408	8,024	13,727	7,992	10,030.00	15,872
Norwegian	4	18,962	15,364	25,733	15,282	19,205.00	35,672
Panaman	1	6,450	5,650	8,947	5,651	7,062.50	12,772
Swedish	5	26,457	19,501	32,618	24,201	24,376.25	42,917
United States	1	5,811	5,765	7,590	5,764	7,123.20	9,693
Totals	21	106,056	84,487	137,324	88,671	105,525.70	175,334

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Australasia to Europe:							
British	14	109,347	81,917	129,200	80,877	$102,396.25	94,692
West coast of South America to Cristobal, C. Z.							
Colombian	5	881	856	1,285	858	1,045.70	1,313
Dutch	1	742	294	780	323	367.50	459
German	4	3,148	2,361	4,217	2,393	2,951.25	2,434
Peruvian	1	2,405	989	3,305	1,514	1,236.25	2,018
Totals	11	7,176	4,500	9,587	5,088	5,600.70	6,224
Philippine Islands to east coast United States:							
Japanese	3	15,663	12,186	19,724	11,940	15,232.50	16,156
United States	4	22,239	19,116	27,396	18,995	23,895.00	35,127
Totals	7	37,932	31,302	47,120	30,935	39,127.50	51,283
West coast of Central America to Cristobal, C. Z.:							
British	3	2,063	1,900	3,436	1,906	2,375.00	3,054
Colombian	1	663	617	1,103	627	477.36	.....
German	1	855	722	1,306	717	902.50	201
Totals	5	3,581	3,239	5,845	3,250	3,754.86	3,255
West coast of United States to Cristobal, C. Z.:							
Panaman	1	2,603	1,383	3,644	2,594	1,728.75	2,673
United States	2	3,767	3,199	5,353	3,199	3,998.75	2,181
Totals	3	6,370	4,582	8,997	5,793	5,727.50	4,854
West coast of Canada to east coast United States:							
United States	3	15,756	12,331	19,635	12,333	15,413.75	22,915
West coast of United States to east coast of Central America:							
United States	3	6,748	6,155	9,798	5,989	7,693.75	3,184
West coast of Central America to Europe:							
German	3	7,583	4,980	9,039	5,040	6,139.34	2,421
West coast of South America to east coast Canada:							
British	2	12,690	10,746	18,669	11,125	13,432.50	25,875
West coast of South America to West Indies:							
British	2	8,237	7,120	11,676	7,034	5,930.64	.....
Australasia to east coast of Canada:							
British	2	10,009	7,713	12,636	7,765	9,641.25	5,043
West coast of United States to West Indies:							
British	1	2,207	1,239	2,338	1,249	1,548.75	3,379
Hawaiian Islands to east coast United States:							
United States	1	1,730	1,528	2,647	1,542	1,910.00	3,125
Australasia to east coast of United States:							
British	1	3,664	2,891	4,566	2,894	3,613.75	7,191
Far East to east coast United States:							
Japanese	1	4,769	3,511	5,652	3,451	4,388.75	3,209
Far East to West Indies:							
Norwegian	1	4,236	2,453	4,300	2,455	3,066.25	7,450
Canadian intercoastal:							
British	1	4,121	3,278	5,752	3,551	4,097.50	6,000
Central American intercoastal:							
Norwegian	1	725	691	1,266	717	863.75	369
South American intercoastal:							
German	1	1,622	1,594	1,912	1,127	1,195.50	.....
Grand totals, March, 1929	269	1,298,141	1,002,898	1,644,148	1,008,805	1,248,230.44	1,901,827
Grand totals, March, 1928	253	1,125,369	875,286	1,420,460	875,940	1,094,037.62	1,684,915
Grand totals, March, 1927	226	1,130,781	893,654	1,448,585	899,352	1,120,840.40	1,741,955

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., April 17, 1929. No. 37.

Canal Traffic During the First Fifteen Days of April.

During the first 15 days of April, 285 commercial vessels and 27 small launches transited the Canal. Tolls on the commercial vessels aggregated $1,189,457.10, and on the launches $288.39, or a total tolls collection of $1,189,745.49.

The daily average of transits of commercial vessels was 19.00 and the average tolls collection $79.297.14. The average amount of tolls paid by each of the commercial transits was $4,173.53, as compared with $4,407.06 for the first 15 days of March. The total commercial transits for the first 15 days of April numbered 14 more than the number passing through during the first 15 days of March, although the tolls collected were slightly less than the amount collected in the first half of March.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 9½ months of the current fiscal year, with the daily averages of transits and tolls:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2.109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January	603	2,502,815.12	19.45	80,735.97
February	522	2,211,961.20	18.64	78,998.62
March	536	2,343,865.55	17.29	75,608.57
April (first 15 days)	285	1,189,457.10	19.00	79,297.14
Totals, first 9½ months of fiscal year 1929	5,131	21,611,394.20	17.75	74,779.91
Totals, first 9½ months of fiscal year 1928	5,201	21,705,385.64	17.93	74,846.15
Totals, first 9½ months of fiscal year 1927	4,323	19,177,482.15	14.95	66,358.07

As compared with the first 9½ months of the fiscal year 1928, the corresponding period this year has had 70 fewer transits and $93,991.44 less tolls.

Removal of Colon Radio Station.

The work of removing the Colon Radio Station from Colon Beach, in the section known as "New Cristobal," to another location was begun in February, 1929, in order that the land may be utilized for building sites in the program of construction of quarters started by The Panama Canal about two years ago. The new radio station will be located north of Fort Davis. The towers will be 200 feet high instead of 300 feet, the height of the Colon towers. The Communication Superintendent for the 15th Naval District advises that, beginning April 9, and continuing until the new site is completed,

the Colon Radio Station is using temporary receiving antennae with remote control to a transmitter in the Darien Station which emits a CW wave.

In another part of this issue appears a "Notice to Mariners," in which it is stated that in the future night lights will not be displayed on the towers at the Colon Radio Station, due to dismantling of the towers.

"Ship's Medicine Chest and First Aid at Sea."

Under the above title the Public Health Service of the United States has issued a 200-page library size book designed to "teach officers and crews of American merchant vessels how to preserve their life and to meet intelligently the accidents of disease and injury." Chapters deal with the structure and functions of the human body, hygiene and sanitation on shipboard, the ship's medicine chest and equipment, medical first aid and symptomatic treatment, specific diseases and their treatment, surgical conditions and their treatment; and the last two chapters comprise an emergency reference section designed for speedy reference in time of emergency only, and a section dealing with radio messages requesting medical advice. The book is illustrated and indexed.

The Surgeon General, United States Public Health Service, Washington, D. C., requested THE PANAMA CANAL RECORD to convey the information that a copy of this book "will be sent to a master of any documented American merchant vessel making request for it by post card or letter."

North Pacific Coast Line to Include Jamaica.

The North Pacific Coast Line (a joint service of the Holland-American Line and the Royal Mail Steam Packet Company), operating in trade between Europe and the west coast of North America, is now including Kingston, Jamaica, as a port of call by alternate vessels in the westbound voyages of the "A" route service. The steamship *Nebraska*, transiting the Canal on March 22, 1929, was the first vessel of the company to make the call at Kingston.

Vessels on this route of the North Pacific Line pass through the Canal fortnightly carrying general and refrigerated cargo, and with accommodations for a limited number of passengers.

"A" route vessels, eastbound, go direct from Cristobal to Liverpool, London, and Rotterdam. "B" route vessels are every three weeks and call at Caracas, Puerto Colombia, and Cartagena before transiting the Canal. Eastbound, these vessels proceed direct to Hamburg, Bremen, Rotterdam, and Antwerp.

Notice to Mariners.

Night Lights Not to Be Displayed on Towers at Colon Radio Station.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *April 11, 1929.*

No. 529.

The 15th Naval District has notified the Governor, Panama Canal, as follows:

Hereafter night lights will not be displayed on towers at Colon Radio Station due to the dismantling of these towers.

H. BURGESS,
Governor.

New Motor Ship Launched for Fred Olsen Line.

The Fred Olsen Line, operators in the trade between Europe and the west coast of North America, via the Panama Canal, have announced the launching of a new motor ship which is to be placed in service in April, 1929. This vessel, named the *Abraham Lincoln*, is 439 feet long by 60 feet beam and 33 feet deep and rated at 11,000 tons deadweight capacity. It is very similar to the *Knute Nelson*, but with some improvements, and like the *Knute Nelson* has about 75,000 cubic feet of storage space. Accommodations are provided for a limited number of first-class passengers.

The company has also under construction another motor ship of the same dimensions, delivery of which is expected later in the year.

Transit of "Empress of Australia."

The British steamer *Empress of Australia*, owned and operated by the Canadian Pacific Steamships, Limited, arrived at Balboa on the morning of April 7, 1929, with a party of 347 tourists. She transited the Canal on April 8th, and sailed the same day for Habana, en route to New York. This vessel is finishing the annual around-the-world cruise conducted by this company, having sailed eastbound from New York last December.

The *Empress of Australia* is 590 feet long, 75 feet beam, and has a registered gross tonnage of 21,861. This is the second around-the-world voyage to be made by this vessel.

Boston Firm Buys Vessels.

The Shipping Board has announced the sale of the steamships *West Cherow* and *Westland* to the Shepard & Morse Lumber Company, of Boston, Mass., and that the vessels will be made ready for sea and put in the intercoastal service together with the steamship *Westbrook* which the owners purchased recently from the Shipping Board.

The *West Cherow* and the *Westland* are steel cargo vessels of 8,582 and 8,800 deadweight tons, respectively, with oil-burning boilers.

"Scadta" Air Service to Begin This Week.

The Sociedad Colombo-Alemana de Transportes Aereos ("Scadta") has announced the inauguration of a regular air transport service between Colombia and the Canal Zone, following the granting of permission by the United States State Department for the planes of the company to land in the Canal Zone. April 17 has been set as the date for the initial flight in this service.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending April 6, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons	*Tons.*
El Salvador	W. R. Grace & Co	March 31	April 1	644	
Venezuela	Panama Mail S. S. Co	April 2	April 2	22	375
Cauca	National Navigation Co	April 2	April 2		5
Isis	Hamburg-American Line	April 2	April 3	451	
Corinto	Panama Mail S. S. Co	April 4	April 4	2	
Kuma Maru	Nippon Yusen Kaisha	April 5	April 6	321	

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 13, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Indiana	6	18.20	7	6.05	7	14.08	7	15.25	French	French Line	418.0	56.0	22 0	Havre, France	Vancouver, B. C.	General	3,545	7,157	4,936
California	7	6.00	7	7.10	7	14.58	8	00.18	American	Panama-Pacific Line	574.4	80 3	26.4	New York, N. Y.	San Francisco, Cal.	General	4,160	24,506	17,565
La Perla	6	20.27	7	7.30	7	16.40	7	18.00	American	United Fruit Co	325 2	48 1	20.2	Port Limon, C. R.	San Francisco, Cal.	Bananas, etc	859	4,033	2,261
Palm Branch	7	4.20	7	7.20	7	16.45	7	18.00	British	F. & W. Ritson	360 0	45 2	19 0	Newcastle-on-Tyne	Valparaiso, Chile	General	2,662	4,195	3,088
Florence Luckenbach	7	1.15	7	8.35	7	18.31	7	20.10	American	Luckenbach Line	401.0	52 0	22 0	Houston, Texas	Tacoma, Wash	General	5,935	6,002	4,621
Steel Navigator	7	3.35	7	8.30	7	19.25	8	2.01	American	Isthmian S. S. Lines	424 2	56.2	25 6	Philadelphia, Pa.	Java, D. E. I	Steel, general	8,102	7,611	5,454
Hegira	7	6.55	7	9.50	7	20.23	8	2.01	American	Norton, Lilly & Co	440.0	56.0	28 6	Baltimore, Md	Seattle, Wash	Steel	9,915	8,353	6,113
Baralt	4	19.15	7	10.15	7	19.25	7	21.05	Dutch	Royal Neth. S. S. Co.	210 0	33.0	12 0	Cristobal, C. Z	Guayaquil, Ecuad'r	General	97	1,183	742
Alaskan	7	8.20	7	11.10	7	21.17	7	22.08	American	Amer.-Hawaiian Line	415.0	54 0	20.6	New York, N. Y.	Portland, Oreg	General	3,503	7,380	5,339
Almelo	6	5.35	7	12 08	7	22.18	7	23.17	Dutch	Royal Neth. S. S. Co.	447 0	62 0	21 0	Hamburg, Germany	Corral, Chile	General	3,561	9,655	6,838
Takaoka Maru	7	13.15	7	13.45	7	23.07	8	00.12	Japanese	Nippon Yusen Kaisha	445.0	58.0	23.2	Baltimore, Md	Kobe, Japan	Cotton, general	6,843	7,989	5,856
Bretagne [2]	7	17.55	7	18.05	8	1.42	8	2.45	Danish	Isbrandtsen Moller	326.2	50.1	21.8	New York, N. Y.	Manila, P. I.	General	5,250	3,820	2,967
Pat Doheny [1]	7	18.00	7	18.40	8	2.38	8	3.42	American	Richfield Oil Co	430 0	59 0	19 0	New York, N. Y.	Los Angeles, Calif	Ballast		7,978	5,840
Manana [3]			7		7	10.56			American	Captain Shemp				Cristobal, C. Z	Gatun, C. Z	Ballast		1	1
Saint Andre	7	8.13	8	6.05	8	19.58	8	21.40	French	French Line	397.9	50.3	20.2	Havre, France	Valparaiso, Chile	General, etc	2,516	5,958	4,164
Mallard [4]			8	6.20	8	20.10			American	U. S. Navy	180 0	35.6		Cristobal, C. Z	Balboa, C. Z	(7)			
Victolite [1 2]	7	22.25	8	7.20	8	21.05	9	2 00	British	Imperial Oil Co., Ltd.	510 2	68.0	19 0	Halifax, N. S	Talara, Peru	Ballast		11,575	7,648
East Lynn [2]	8	6.47	8	8.10	8	22.07	8	23.55	British	Sir W. R. Smith & Sons	401.0	54 3	14 0	Manchester, Eng	Vancouver, B. C.	Ballast		6,784	5,107
Trewyn	8	6 40	8	9.00	8	23.08	9	00 58	British	N. Z. Shipping Co	400.0	52.4	20 0	Halifax, N. S	Brisbane, Australia	General	3,500	5,823	4,093
Tillie Lykes	8	7.15	8	9.00	8	22 15	8	23.55	American	Ste'son, Torres & Ibanez	251 0	43.5	16 0	Manzanillo, Cuba	Buenaventura, Col.	Cattle	400	2,873	1,765
Eknaren [2]	8	8.00	8	9.35	8	23.56	9	11.07	Swedish	Transatlantic S. S. Co.	420.0	54.0	17.0	Gothenb'g, Swed'n	Brisbane, Australia	General	1,099	7,105	5,193
West Montop	8	8.25	8	10.45	9	00.49	9	2.00	American	States S. S. Co	410.0	54 4	20 0	Wilmington, Del.	Seattle, Wash	General	4,364	6,484	4,675
Cambrai [5]	8	6.15	8	16.55	9	1.33	9	18.15	American	U. S. Army	436 0	58 0	26 0	Brooklyn, N. Y.	Honolulu, T. H.	General	580		
Meissonier	8	13.48	9	6.10	9	17.55	9	19.07	British	Royal Mail S. P. Co.	440.0	56.3	27.3	Rotterdam, Holland	Vancouver, B. C.	General	3,762	7,487	4,641
S-14 [6]			9	10.00	9	17.58			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z				
S-16 [6]			9	10.00	9	17.58			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z				
Greylock	9	9.30	9	11.15	9	19.43	10	00.30	American	Isthmian S. S. Lines	430.7	54.3	28.6	Baltimore, Md	Vancouver, B. C.	Steel, general	9,898	7,946	5,698
Steel Inventor	9	12.05	9	12.25	9	20.40	9	22.30	American	Isthmian S. S. Lines	424.0	56.0	24.6	Mobile, Ala	Shanghai, China	General	8,112	7,611	5,450
Nosa King	9	2.40	9	14.46	9	22.28	10	00.27	American	N. O. & S. A. S. S. Co.	324 0	46.0	19.4	New Orleans, La	Talcahuano, Chile	Gas, general	2,619	3,978	2,553
Yorba Linda [1]	9	17.12	9	17.30	10	1.19	10	2.30	American	Standard Transp. Co.	435.0	56.2	18.0	New York, N. Y.	Los Angeles, Calif	Ballast		7,424	5,077
Tamaroa	9	22.55	10	6.30	10	13.22	11	7.30	British	Shaw, Savill & Albion	500.0	63.0	26.0	London, England	Wellington, N. Z.	General	6,300	13,592	9,383
Turakina	10	5.50	10	6.30	10	14.21	10	21.06	British	N. Z. Shipping Co	460.5	62.6	24.0	Liverpool, England	Adelaide, Australia	General	6,270	10,618	7,306
Columbian	10	6.10	10	7.30	10	15.03	10	16.05	American	Amer.-Hawaiian Line	404.0	53.0	19.0	Boston, Mass	Seattle, Wash	General	3,337	6,760	4,450
S-11 [6]			10	8.15	10	17.32			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z				
S-12 [6]			10	8.15	10	17.32			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z				
S-15 [6]			10	8.15	10	17.32			American	U. S. Navy	231 0	21.10		Cristobal, C. Z	Balboa, C. Z				

[1] Tanker. [2] Motor ship. [3] Sailboat. [4] Mine sweeper. [5] Transport. [6] Submarine. [7] Towing pontoons.

Edenton	10	6	30	10	9	15	10	18	21	11	00	02	American	Roosevelt S. S. Co., S. B.	410.0	54.0	26.0	New York, N. Y.	Newchwang, China	General	8,244	7,478	5,906
Teno	10	2	10	10	11	25	10	19	10	10	29	40	Chilean	Cia. Sud. Am. de Vapores	422.0	56.0	25.10	New York, N. Y.	Valparaiso, Chile	General	2,332	7,764	4,672
Phobos [1]	10	7	18	10	13	00	10	20	04	10	21	06	Dutch	Anglo-Saxon Pet. Co.	440.2	59.4	22.7	Amst'dam, Holland	Los Angeles, Calif.	Ballast		7,935	5,065
Lillian Luckenbach.	10	7	47	10	14	05	10	21	25	10	22	48	American	Luckenbach Line	448.9	60.2	23.6	Boston, Mass.	Tacoma, Wash.	General	6,000	9,294	6,865
Albionstar	10	9	35	10	15	05	10	22	20	11	18	30	British	Blue Star Line	450.0	58.0	20.0	Newcastle-on-Tyne	Vancouver, B. C.	Ballast		8,317	5,531
Niagara [3]	10	4	25	10	15	45	14	13	36				American	U. S. Navy	243.0	36.0	18.9	Philadelphia, Pa.	Balboa, C. Z.				
Hartbridge	10	11	15	10	15	50	10	23	40	11	00	43	British	North of Eng. S. S. Co.	390.0	55.0	16.0	Norfolk, Va.	Vancouver, B. C.	Ballast		6,179	4,521
Yorkmar	10	11	20	10	16	25	11	00	30	11	1	45	American	Calmar S. S. Corp.	409.8	54.2	27.3	Baltimore, Md.	Seattle, Wash.	Steel, general	9,088	6,757	4,919
Belmoira [4]	10	18	40	10	18	55	11	2	00	11	12	55	Norwegian.	Christen Smith	329.0	49.0	20.6	Pt. Talbot, Eng.	Pt. Kembla, Aust'a.	[11]	4,00.	3,489	2,299
Greldon	10	16	30	10	19	10	11	3	00	11	4	02	British	Wessel, Duval & Co.	400.0	52.0	17.0	Newport News, Va.	Iquique, Chile.	Ballast		5,687	4,057
Sun [5]	10	18	50	10	20	20	11	3	45	11	7	30	American	Sun Oil Co.	480.6	66.0	21.0	Chester, Pa.	Los Angeles, Calif.	Ballast		9,620	6,476
Santa Cecelia	10	17	20	11	6	20	11	13	35	11	17	10	American	Grace Line	408.0	55.0	21.7	New York, N. Y.	Valparaiso, Chile	General	2,799	6,672	6,585
Canadian Prospector	11	1	05	11	6	30	11	16	11	11	17	25	British	Can. Nat. Steamships	400.0	52.0	16.0	Halifax, N. S.	Vancouver, B. C.	General	73	5,893	4,068
Americanstar.	10	23	40	11	8	10	11	16	57	11	18	00	American	Charles Ne'son Line	386.8	52.2	22.2	Baltimore, Md.	Tacoma, Wash.	General	5,934	5,699	4,167
Cyclops	11	6	38	11	10	30	11	19	04	11	20	36	British	Alfred Holt & Co.	481.0	58.2	31.0	Philadelphia, Pa.	Dairen, China	General	10,179	9,296	6,855
Pacific Trader [2]	10	8	40	11	13	45	11	20	00	12	00	26	British	Furness, Withy & Co.	420.0	58.0	19.4	Glasgow-England.	Vancouver, B. C.	General, bananas	2,238	7,905	5,869
Marion Otis Chandler	11	15	00	11	15	30	11	23	40	12	00	50	American	Los Angeles S. S. Co	409.6	54.1	20.0	Baltimore, Md.	Portland, Oreg.	General	4,404	6,653	4,870
Arenosa [3]				11			11	18	29				American	United Fruit Co.				Cristobal, C. Z.	Gatun, C. Z.	[12]		8	8
No. 31077 [10]				11			11	18	29				American	United Fruit Co.				Cristobal, C. Z.	Gatun, C. Z.			11	11
No. 31078 [10]				11			11	18	29				American	United Fruit Co.				Cristobal, C. Z.	Gatun, C. Z.			11	11
No. 31079 [10]				11			11	18	29				American	United Fruit Co.				Cristobal, C. Z.	Gatun, C. Z.			11	11
Lake Elmsford	11	18	40	12	6	15	12	13	45	12	15	10	American	Johann G. Ohsol	253.0	43.8	19.0	New York, N. Y.	Vladivostok, Rus.	General	688	2,814	1,858
Caldas [2]	9	19	30	12	6	20	12	14	45	13	1	14	Colombian.	National Navigation Co.	116.0	21.1	10.0	Cristobal, C. Z.	Buenaventura, Col.	General	228	211	124
Benholm.	12	4	35	12	7	45	12	14	45	12	16	10	British	The Cecil Shipping Co.	407.0	53.5	19.0	New York, N. Y.	Dunedin, N. Z.	General	3,876	6,103	4,610
Dean Emery [1]	12	9	47	12	10	00	12	17	10	12	18	30	American	Huasteca Petroleum Co.	429.3	59.2	22.0	Norfolk, Va.	Los Angeles, Calif.	Ballast		7,709	5,517
Thames Maru.	12	00	35	12	11	05	12	19	36	12	21	00	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	27.0	Galveston, Texas.	Yawata, Japan	[13]	6,718	5,928	4,381
Raisdale	12	7	00	12	13	25	12	21	50	12	23	00	British	Turnbull, Ltd	380.0	49.0	24.3	Antwerp, Belgium.	Wellington, N. Z.	Slag, phosphates.	6,196		
Point San Pablo	12	13	07	12	14	15	12	22	52	12	00	15	American	Swayne & Hoyt	324.0	46.2	24.0	Galveston, Texas.	Seattle, Wash.	Sulphur, general.	4,375		
Witell	11	1	35	12	15	58	12	23	58	13	1	14	German.	North German Lloyd	449.6	58.3	23.7	Hamburg, Germany	San Antonio, Chile.	General	5,612	7,816	5,755
Noorderdijk	11	20	10	12	22	30	13	3	50	13	4	53	Dutch	Holland-American Line.	479.0	58.0	18.5	Rotterdam, Holland	Vancouver, B. C.	General	2,907½	8,888	6,612
Magellan	12	9	33	13	6	17	13	17	55	13	18	50	British	Pacific Steam Nav. Co.	461.6	59.3	21.0	Glasgow-England.	Corral, Chile	General	3,405½	8,817	6,063
Abron	13	1	50	13	7	30	13	18	58	13	20	28	American	Redwood Line	386.8	52.2	21.6	New Orleans, La.	San Francisco, Cal.	General	4,460	5,732	4,131
Cerigo	11	17	40	13	10	25	13	18	08	13	20	28	German.	Hamburg-American Line	227.0	34.0	13.6	Cristobal, C. Z.	Guayaquil, Ecuad'r	General	200	1,572	1,011
Corinto	4	17	00	13	10	39	13	18	58	13	22	25	American	Panama Mail S. S. Co.	261.0	40.0	17.9	Cristobal, C. Z.	San Francisco, Cal.	General	2,115	2,352	1,549
Vancolite [2]	13	11	15	13	11	43	13	19	50	13	21	25	British	Imperial Oil Co., Ltd.	510.2	68.2	24.0	New York, N. Y.	Talara, Peru	Ballast		11,573	7,096
Finn [2]	13	20	00	13	13	10	13	20	46	13	22	25	Swedish.	Colombian Mar. Co.	271.0	41.3	13.6	New York, N. Y.	Buenaventura, Col.	General	467	2,472	1,513
Egypt Maru.	13	18	33	13	19	00	14	3	58	14	9	35	Japanese	Kokusai Kisen Kaisha	400.0	54.0	29.0	Baltimore, Md.	Yokohama, Japan	[14]	7,811	7,018	5,059

[1] Tanker. [3] Survey ship. [9] Launch. [10] Barge. [11] Building material and machinery. [12] Towing barges. [13] Cotton and lubricating oil. [14] Iron, phosphates, tobacco, and cotton.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Radnor	6	22	30	7	00	10	7	8	55	7	8	55	American	American-Pioneer Line	434.3	57.7	27.9	Manila, P. I.	New York, N. Y.	Sugar	9,484	7,982	5,956
Mantaro	7	6	20	7	7	50	7	16	15				Peruvian	Peruvian Line	367.3	46.0	19.0	Callao, Peru	Cristobal, C. Z.	Copper, general	1,998½	4,838	2,959
Troutpool	7	7	30	7	9	24	7	17	30	7	18	35	British	Sir R. Ropner & Co.	390.0	55.0	22.0	Vancouver, B. C.	Hamburg, Germany	Wheat	7,595	5,899	4,231
Garfield	7	11	15	7	11	55	7	19	35	7	21	37	American	N. O. & S. A. S. S. Co	299.4	45.0	24.0	Iquique, Chile.	New Orleans, La.	Nitrates	3,644	3,256	2,010

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Vaba [1]	7	14 15	7	14 55	7	23 15	7	23 15	American	T. P. Gallagher & Co	390 0	54 2	24 6	Manila, P. I	New Orleans, La	Coconut oil	6,495	6,205	4,284
San Jose	7	15 15	7	21 35	8	8 47			American	United Fruit Co	330 0	44 6	17 0	San Francisco, Cal.	Port Limon, C. R.	General	495½	3,675	2,359
Hope [15]			7	12 25					American	J. R. Powell	37 0			Balboa, C. Z	Gatun Lake, C. Z.			16	11
Louque	7	19 42	8	5 24	8	13 35	8	18 25	French	Messageries Maritimes	447 7	52 6	25 0	Noumea, N. Calid	Dunkirk, France.	General	3,309		
Empress of Australia	7	6 50	8	6 13	8	14 45	8	19 05	British	Can.-Pac. S. S. Co., Ltd	590 0	72 2	27 6	San Francisco, Cal.	New York, N. Y.	Passengers		22,680	14,476
Brazil Maru	8	3 15	8	6 53	8	15 15	8	16 20	Japanese	Kokusai Kisen Kaisha.	385 0	51 0	26 0	Vancouver, B. C.	Antwerp, Belgium	Wheat	7,514	5,915	4,423
Oglala			8	8 23	8	16 55	8	16 55	American	U. S. Navy	375 0	52 2	18 3	Balboa, C. Z	Cristobal, C. Z				
Maury			8	8 25	8	16 20	9	13 00	American	U. S. Navy	314 0	30 0		Balboa, C. Z	Cristobal, C. Z				
Mahan			8	8 35	8	16 20			American	U. S. Navy	314 0	30 0		Balboa, C. Z	Cristobal, C. Z				
Thomas P. Beal	8	4 30	8	8 49	8	18 20	9	00 35	American	Isthmian S. S. Lines	304 1	55 1	27 0	Vancouver, B. C.	Avonmouth, Eng	[20]	7,764	7,047	5,100
Quail			8	9 10	8	18 30			American	U. S. Navy	180 0	35 6		Balboa, C. Z	Cristobal, C. Z				
Persephone [16]	8	5 00	8	10 00	8	19 00	9	6 15	Danzig	Baltic-Am. Pet. & Im. Co.	468 8	62 2	27 0	Los Angeles, Calif	Lands' End, Eng.	Gasoline	11,219	9,336	6,338
Atlantic [8]	8	6 20	8	11 06	8	21 05	9	15 00	Greek	Kulukundis & Co	410 7	54 1	23 6	Iquique, Chile	Azores [19]	Nitrates	8,151	6,221	4,482
Santa Elisa	8	10 55	8	12 36	8	21 05	8	23 07	American	Grace Line	360 3	51 7	25 0	Talcahuano, Chile	New York, N. Y	[21]	3,799	5,957	4,325
Canadian Commander	8	8 20	8	13 06	8	21 45	8	24 00	British	Can. Nat. Steamships	400 0	52 4	18 8	Brisbane, Australia	Montreal, Canada	[22]	3,546	5,714	4,195
Highland Heather	8	12 37	8	13 58	8	22 25	8	22 25	British	H. & W. Nelson, Ltd.	398 0	52 5	25 0	Tacoma, Wash	London, England	Apples, copper	3,737	6,275	4,549
Benvenue	8	13 30	8	14 28	8	23 30	9	3 20	British	Canadian Transp. Co	429 0	53 9	25 8	Vancouver, B. C.	Immingham, Eng.	Railway ties	7,650	6,529	4,239
Mary Ann [14]			8		8				Panaman	United Fruit Co				Balboa, C. Z	Gatun Lake, C. Z.	[24]			
No. 31059 [17]			8		8				Panaman	United Fruit Co				Balboa, C. Z	Gatun Lake, C. Z.	[24]			
No. 31063 [17]			8		8				Panaman	United Fruit Co				Balboa, C. Z	Gatun Lake, C. Z.	[24]			
No. 31064 [17]			8		8				Panaman	United Fruit Co				Balboa, C. Z	Gatun Lake, C. Z.	[24]			
No. 31072 [17]			8		8				Panaman	United Fruit Co				Balboa, C. Z	Gatun Lake, C. Z.	[24]			
No. 31073 [17]			8		8				Panaman	United Fruit Co				Balboa, C. Z	Gatun Lake, C. Z.	[24]			
Ana Luisa [15]			8		8				Panaman	Luis Durati				Balboa, C. Z	Gatun Lake, C. Z.				
Laguna [16]	8	12 00	9	00 30	9	8 40	9	8 40	British	Pacific Steam Nav. Co	420 5	54 2	26 0	Talcahuano, Chile	Glasgow, Scotland	General	7,743	7,139	4,640
Willwello	8	17 15	9	1 05	9	9 40	9	9 40	American	Williams S. S. Line	409 8	54 2	25 0	Everett, Wash	Boston, Mass	Lumber	7,340	6,821	4,927
Ramon de Larrinaga	8	18 30	9	2 14	9	10 55	9	13 15	British	Larrinaga & Co	450 0	58 0	26 0	Vancouver, B. C.	Hamburg, Germany	Lumber, grain	8,635	7,712	5,600
Leda [16]	8	16 00	8	2 43	9	11 35	9	11 35	Danzig	Standard Shipping Co.	489 0	63 0	27 9	Talara, Peru	Halifax, N. S	Crude oil	11,500	9,347	6,063
Orleans	8	20 00	9	3 52	9	12 15	9	12 15	American	Quaker Line	395 5	55 0	26 8	Seattle, Wash	Philadelphia, Pa.	Lumber	7,983	7,330	5,233
Trewellard	8	23 00	9	4 50	9	13 45	9	15 20	British	Hain S. S. Co	370 2	51 6	23 5	Vancouver, B. C.	Rotterdam, Holland	Lumber, wheat	6,840	5,356	4,204
Leise Maersk	9	2 30	9	5 47	9	14 30	9	15 25	Danish	Isbrandtsen Moller Co.	302 2	44 2	22 3	Iloilo, P. I	East coast U. S	Sugar	4,250	3,212	2,206
Yomachichi [16]	8	18 55	9	7 10	9	15 45	9	15 45	American	Roosevelt S. S. Co., S. B.	402 0	54 0	27 0	Iloilo, P. I	New York, N. Y	[25]	8,590	6,996	5,042
Caldas [16]	9	4 00	9	7 26	9	19 30			Colombian	National Navigation Co.	116 0	21 0	9 0	Buenaventura, Col.	Cristobal, C. Z	General	171	211	124
Uribe	9	5 30	9	7 40	9	17 05			Colombian	Colombian Mar. Co.	237 0	32 0	12 8	Buenaventura, Col.	Cristobal, C. Z	[26]	483	1,154	663
El Panquinco [18]			9	7 44	9	16 45	9	16 45	Panaman	Panama Government	116 0	21 0	9 0	Balboa, C. Z	Cristobal, C. Z				

[1] Tanker. [15] Launch. [16] Motor ship. [17] Barge. [18] Coast guard cutter. [19] For orders. [20] Grain, lumber, and general. [21] Copper, nitrates, and general.
[22] Tallow, wool, and skins. [23] Towing barges. [24] Towed by *Mary Ann*. [25] Sugar and desicated coconut. [26] Coffee, hides, and gold.

Denver [27]	...	...	9	8.28	9	18.45	10	14.00	American	U. S. Navy	292.0	44.0	...	Balboa, C. Z	Cristobal, C. Z	...	...	...
Sunbeam [1]	9	5.50	9	8.50	9	19.05	9	19.05	American	Sun Oil Co	429.3	59.2	26.9	San Francisco, Cal.	Philadelphia, Pa.	Gasoline	9,562	7,709	5,562
Buenaventura	9	8.15	9	9.25	9	18.35	10	16.37	American	Panama R. R. S. S. Line	251.0	43.0	16.0	Guayaquil, Ecuad'r	New York, N. Y.	(28)	1,115	2,873	1,776
Nevadan No. 1	9	10.25	9	11 14	9	19 45	9	19.45	American	Amer.-Hawaiian Line	460.0	57.8	26.9	Portland, Oreg.	Boston, Mass.	General	6,862	6,829	4,627
Horace Luckenbach	9	10.50	9	11.42	9	21 20	9	21 20	American	Luckenbach Line	445.0	58.0	27.6	Portland, Oreg.	Boston, Mass	General	7,785	6,899	6,363
Saint Joseph	9	14.50	9	15.23	9	21.25	10	15.10	Norwegian	J. Lund & Co	257.0	39.7	16 5	Puntarenas, C. R.	London, England	Coffee	1,649	1,820	1,134
Betty Joe [15]	8	18.00	9	7.19	9	...	...	...	Panaman	United Fruit Co	45.0	7.0	3.0	Puntarenas, C. R	Gatun Lake, C. Z.	(21)	...	...	...
Saltriver No. 1 [17]	8	18.00	9	7.19	9	...	...	...	Panaman	United Fruit Co	...	...	...	Puntarenas, C. R.	Gatun Lake, C. Z.	(29)	...	...	...
Saltriver No. 8 [17]	8	18.00	9	7.19	9	...	...	...	Panaman	United Fruit Co	...	...	...	Puntarenas, C. R.	Gatun Lake, C. Z.	(29)	...	...	...
Puntarenas [15]	8	18.00	9	7.19	9	...	...	...	Panaman	United Fruit Co	...	...	...	Puntarenas, C. R.	Gatun Lake, C. Z.	(29)	...	...	...
Elkhorn	10	00.45	10	2.20	10	11.18	10	11.18	American	Tampa Interocean Co.	402.6	54.8	24.4	Manila, P. I	Baltimore, Md	Sugar	8,200	6,941	5,210
Pacific Grove [16]	9	23.00	10	3.43	10	12 30	10	12.30	British	Furness-Pacific Line	450.4	60.8	27.6	Vancouver, B. C.	London, England	General	8,585	10,086	7,226
Sunoil [1 16]	9	15.20	10	5.44	10	14.10	10	14.10	American	Sun Oil Co	480.6	66.0	28.6	Los Angeles, Calif.	Marcus Hook, Pa.	Gasoline	13,683	9,610	6,396
West Keats	10	5.00	10	7.12	10	15.20	10	15.20	American	States S. S. Co	410.5	54.3	25 0	Olympia, Wash.	Philadelphia, Pa.	Lumber	4,742	6,572	4,900
Sinnington Court	10	6.00	10	8.00	10	17.10	10	18.15	British	Haldin & Co	420.1	56.5	26 2	Vancouver, B. C.	Falmouth, England	Wheat	9,966	6,967	4,963
Texmar	10	15.45	11	3.10	11	13.05	11	13.05	American	Calmar S. S. Co	410.9	54.3	24.6	Hoquiam, Wash	Philadelphia, Pa.	Lumber	6,770	6,567	4,908
Mabriton	10	16.30	11	4.46	11	15.15	11	16.00	British	R. Chapman & Son	412.6	55.0	27.6	Vancouver, B. C.	Falmouth, Eng.	Wheat	9,924	6,823	4,797
Herman Frasch	10	22 10	11	5.25	11	14.20	11	14.20	American	Union Sulphur Co	356.0	51.6	26.0	Westport, Oreg.	Poughkeepsie, N. Y.	Lumber	5,300	5,349	2,950
Havel [16]	11	00.01	11	6 44	11	16.00	11	22.20	German	North German Lloyd	474.1	61.7	27 5	Vancouver, B. C.	Hamburg, Germany	Lumber, general.	8,970	9,305	6,790
Broad Arrow [1]	11	4.45	11	7.26	11	16.45	11	16.45	American	Standard Oil Co	467.6	62.7	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,113	9,700	6,842
George W. Barnes [1]	10	19.00	11	8.13	11	18 15	11	23.55	American	Huasteca Petroleum Co.	416.8	56.1	26 0	Los Angeles, Calif	Baltimore, Md	Gasoline	9,540	6,743	4,759
Cerigo	11	6.55	11	8 39	11	17.40	13	10.25	German	Hamburg-American Line	227.2	34.4	14 3	Guayaquil, Ecuad'r	Cristobal, C. Z	(32)	1,040	1,572	1,011
Calcutta Maru	11	6.10	11	9 12	11	19.45	12	00.40	Japanese	Nippon Yusen Kaisha	400.0	54.5	19 3	Iloilo, P. I	New York, N. Y.	General	4,856	5,970	4,178
Stanley	11	6.30	11	10.15	11	20 30	11	20.30	American	Roosevelt S. S. Co., S. B.	401.7	54.8	27.4	Manila, P. I	New York, N. Y.	Sugar	8,000	6.933	5,187
Sutermeo	11	11.55	11	13.30	11	22.35	12	1.55	American	Transmarine Lines	324.0	46 2	24 0	Chanaral, Chile	New York, N. Y.	Copper, nitrates	4,916	3,984	2,628
Planter	11	17.30	11	18 45	12	9 05	12	12.40	British	T. & J. Harrison	420 0	55.2	26 0	Vancouver, B. C.	Liverpool, England	(31)	7,844	6,558	4,621
Lieut. C. M. McCauley [1]	...	...	11	...	11	...	...	...	American	U. S. Army	...	...	...	Balboa, C. Z	Pedro Miguel, C. Z.	...	...	...	...
Amsterdam	12	2.20	12	3.15	12	13 22	12	17.35	Dutch	Royal Neth. S. S. Co.	473.5	65.5	29 6	Corral, Chile	Hamburg, Germany	Nitrates, general	12,995	11,368	7,744
Hororata	12	3.05	12	4.29	12	15.44	12	17.25	British	N. Z. Shipping Co	511.0	64.2	25 9	Auckland, N. Z.	London, England	Frozen, general.	5,788	...	...
Oroya	11	11.45	12	5.19	12	15.00	12	21.00	British	Pacific Steam Nav. Co.	525.3	62.8	26.8	Talcahuano, Chile	Liverpool, England	General	6,695	13,137	9,067
Jamaica	12	4.15	12	6.00	12	16.35	...	...	British	Pacific Steam Nav. Co.	220.0	34.0	13 6	Champerico, Guat.	Cristobal, C. Z	(34)	858	1,187	622
All America [10 36]	4	20.10	12	6.59	12	16.05	12	20.45	American	All America Cables	278 0	37.0	18 7	Balboa, C. Z	Cristobal, C. Z	...	...	...	...
Margarethe Cords	12	7.10	12	9 18	12	18.00	12	22.43	German	Colombian Mar. Co.	266.8	42.1	12 3	Buenaventura, Col.	New York, N. Y.	(35)	380	2,263	1,622
Nordpol [16]	12	11.45	12	12.08	12	19.55	12	19.55	Danish	Dupont de Nemours	380 8	53 9	28.0	Iquique, Chile	Charleston, S. C.	Nitrates	8,800	6,252	4,519
Dagrun [16]	12	12.40	12	13 19	12	21 00	12	21.00	Norwegian	J. P. Pedersen & Son	381.9	54.0	25.0	Manila, P. I	New York, N. Y	General	7,800	...	...
Larry Doheny [1]	12	14.00	12	14.37	12	23.10	12	23.10	American	Richfield Oil Co	430.0	59.2	28 0	Los Angeles, Calif	New York, N. Y.	Gasoline	9,500	7,494	5,198
Centaurus	12	15 45	13	4.46	13	12.30	13	12.30	American	N. Y. & S. Amer. Line	409.8	54.2	24 8	San Antonio, Chile	Norfolk, Va.	Nitrates	7,740	6,851	4,795
K. R. Kingsbury [1]	12	16.10	13	5.28	13	13 35	13	13.35	American	Standard Oil Co. of Cal.	440.0	58.2	29.0	Los Angeles, Calif.	New York, N. Y.	Gasoline.	10,000	9,033	5,938
C. A. Larsen [1]	12	17.30	13	6.37	13	15.00	13	15.00	Norwegian	Rasmussen & Konow	540.8	66.6	29 6	Wellington, N. Z	New York, N. Y.	Whale oil	12,000	15,017	10,329
Gisla [16]	12	17.30	13	7.20	13	16 20	13	16.20	Norwegian	Biorn Biornstad & Co.	360.5	51.6	22.3	Iloilo, P. I	New York, N. Y.	Sugar, lumber.	5,950	5,101	3,735
Feltore	13	4.40	13	8.47	13	18.05	13	18.05	American	Ore S. S. Corp	449.1	57.2	30 0	Cruz Grande, Chile	Baltimore, Md	Iron ore	11,122	7,808	5,139
Tillie Lykes	13	6 00	13	8 51	13	17.10	13	19.16	American	Lykes Bros. S. S. Co	251.0	43.6	15.0	Buenaventura, Col.	Houston, Texas	Ballast	...	2,873	1,765
New Jersey	13	5 35	13	9.03	13	18.50	14	00.40	American	The Texas Co	416.8	56.1	24 7	Los Angeles, Calif.	Antwerp, Belgium	Gasoline	7,520	7,130	5,249

[1] Tanker. [27] Cruiser. [28] Tagua, balsam, and general. [29] Towed by *Betty Joe*. [30] Cable ship. [31] For orders. [32] Cocoa, coffee, and general.
[33] Grain, lumber, and general. [34] Coffee, hides, and wood. [35] Coffee, and ivory nuts. [36] South for dry-docking.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC to ATLANTIC.—Continued.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Point Sur	13	7 20	13	9 24	13	20 00	13	20 00	American	Swayne & Hoyt, Inc	324.0	46 2	21.0	San Francisco, Cal.	New Orleans, La.	Lumber, general.	3,297	3,984	2,612
Iowan	13	7 15	13	10 19	13	19 20	13	19 20	American	American-HawaiianLine	407.7	53 7	27.6	Seattle, Wash	Boston, Mass	General	8,119	7,079	5,028
West Lynn [36]	13	7 40	13	11 09	13	20 40	13	20 40	British	Sir W. R. Smith & Sons	401.1	54.2	25.2	Vancouver, B. C.	London, England	General	7,700	6,752	5,161
Cragness	13	12 25	13	13 08	13	21 20	13	21 20	British	Sir W. R. Smith & Sons	412.1	55.0	24.8	Vancouver, B. C.	Rotterdam, Holland	Wheat	8,030		
Sabotawan	13	16 10	13	20 21	14	10 15	14	10 15	American	Greay So. Lumber Co.	386.8	52.0	22.6	San Francisco, Cal.	New Orleans, La.	Lumber, general	6,500	5,708	4,138

[36] Motor ship

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
April 8	Iriona	United Fruit Co	Bocas, R. P.
April 8	Vision [37]	F. E. Pernet	High seas.
April 8	Ulua	United Fruit Co	New York via Habana.
April 9	Maravi	United Fruit Co	New York.
April 9	Lubeck	Hamburg-American Line	Hamburg via wayports.
April 10	Carare	Elders & Fyffes, Ltd	Avonmouth via wayports.
April 10	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
April 10	Stuyvesant	Royal Neth. S. S. Co	Amsterdam via wayports.
April 10	Zacapa	United Fruit Co	New York via Kingston.
April 10	No. 9775 [38]	Pan-American Airways	David, R. P.
April 10	Cundinamarca No. 33 [38]	Scadta Airplane Co	Barranquilla, Colombia.
April 10	El Panquiaco [39]	Panaman Government	Colon, R. P.
April 10	Anachucuna [40]	United Fruit Co	Colon, R. P.
April 10	Inapaquina [40]	United Fruit Co	Colon, R. P.
April 10	Annetta I. [40]	A. Tagaropulos	Colon, R. P.
April 11	Coppename	United Fruit Co	New Orleans, La.
April 11	No. 9685 [38]	Pan-American Airways	Tela via wayports.
April 11	Teutonia	Hamburg-American Line	Hamburg via wayports.
April 12	Atlantida	Standard Fruit S. S. Co	New Orleans, La.
April 12	Gundersen	Gundersen Steamship Co	Baltimore, Md.
April 12	Stuyvesant	Royal Neth. S. S. Co	Port Limon, C. R.
April 12	Inapaquina [40]	United Fruit Co	Colon, R. P.
April 12	Anachucuna [40]	United Fruit Co	Colon, R. P.
April 13	Wanks	Standard Fruit S. S. Co	San Blas, R. P.
April 13	Linda S. [41]	A. L. Surgeon	Colon, R. P.
April 13	Heredia	United Fruit Co	New Orleans via Habana.
April 13	No. 9664 [38]	Pan-American Airways	Managua via wayports.

* DEPARTURES.

Date.	Vessel.	Line.	For—
April 7	Peursum	Royal Neth. S. S. Co	Curacao, D. W. I.
April 7	Rugia	Hamburg-American Line	Cartagena, Colombia.
April 7	Trigonia	Anglo-Saxon Petroleum Co	Curacao, D. W. I.
April 8	Parismina	United Fruit Co	New Orleans and wayports
April 8	J. A. Moffett, Jr.	Standard Shipping Co	Cartagena, Colombia.
April 9	No. 9685 [38]	Pan-American Airways	Tela via wayports.
April 9	Iriona	United Fruit Co	Tela, Honduras.
April 9	Wanks	Standard Fruit S. S. Co	San Blas, R. P.
April 10	Ulua	United Fruit Co	Port Limon, C. R.
April 10	Stuyvesant	Royal Neth. S. S. Co	Port Limon, C. R.
April 10	Carare	Elders & Fyffes, Ltd	Avonmouth via wayports.
April 10	El Panquiaco [39]	Panaman Government	Colon, R. P.
April 10	Inapaquina [40]	United Fruit Co	Colon, R. P.
April 10	Anachucuna [40]	United Fruit Co	Colon, R. P.
April 11	Annetta I. [40]	A. Tagaropulos	Colon, R. P.
April 11	Cundinamarca No. 33 [38]	Scadta Airplane Co	Barranquilla, Colombia.
April 11	No. 9664 [38]	Pan-American Airways	Tela via wayports.
April 11	Zacapa	United Fruit Co	New York via wayports.
April 11	Maravi	United Fruit Co	Puerto Colombia.
April 12	Inapaquina [40]	United Fruit Co	Colon, R. P.
April 12	Anachucuna [40]	United Fruit Co	Colon, R. P.
April 12	Coppename	United Fruit Co	Port Limon via Bocas.
April 12	No. 9775 [38]	Pan-American Airways	Guayaquil via wayports.
April 12	Teutonia	Hamburg-American Line	Port Limon, C. R.
April 12	Gundersen	Gundersen Steamship Co	New Orleans, La.
April 13	Linda S [41]	A. L. Surgeon	Bluefield, Nic. & wayports.
April 13	Atlantida	Standard Fruit S. S. Co	New Orleans, La.
April 13	No. 9685 [38]	Pan-American Airways	Tela via wayports.
April 13	Stuyvesant	Royal Neth. S. S. Co	Amsterdam via wayports.

[37] Yacht. [38] Air-mail carrier. [39] Transport. [40] Motor boat. * Other than ships passing through the Canal. [41] Motor schooner

(Continued on page 540, column 2.)

Cargo Through Canal During March, 1929.

On pages 538 and 539 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in March, 1929. This cargo, segregated according to direction, as compared with March, 1928, and the differences, is shown in the following tabulation:

	March 1929.	March 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Atlantic to Pacific	841,941	743,747	98,194
Pacific to Atlantic	1,901,827	1,684,915	216,912
Totals	2,743,768	2,428,662	315,106

As will be noted above, cargo tonnage from the Atlantic to the Pacific increased 98,194 tons and that from the Pacific to Atlantic showed a gain of 216,912 tons, making an increase in both directions over March, 1928, of 315,106 tons. Heavy shipments of mineral oils contributed largely to the increase in the Pacific to Atlantic cargo movement.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin—Sixty-seven and six-tenths per cent of the cargo moving from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 19.2 per cent in Europe. Cargo originating in the United States was 70,975 tons, or 14.2 per cent greater than the amount coming from that area in March, 1928, although the proportion of the whole in both months was approximately the same. Cargo from Europe decreased in the amount of 38,123 tons, or 19.0 per cent, under that originating in that region in March, 1928. The proportion of the whole routed from Europe in March, 1929, was also lower than the amount passing through during March last year.

Destination—Forty per cent of the Pacific-bound cargo was destined to the United States; 22.4 per cent to Asia; 15.9 per cent to Australasia; and 14.6 per cent to South America. Cargo to the United States showed an increase of 12,441 tons, or 3.7 per cent; that to Asia an increase of 53,309 tons, or 39.2 per cent; that to Australasia an increase of 10,584 tons, or 8.6 per cent; and that to South America an increase of 14,333 tons, or 13.1 per cent, over March, 1928. The proportion of the total cargo going to the United States and Australasia was somewhat lower in March, 1929, than in the corresponding month in 1928, while that of Asia was slightly higher. The proportion of the whole cargo going to South America was the same in March of both years.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin—Of the cargo moving in this direction, 46.8 per cent originated on the west coast of the United States; 30.2 per cent in South America; 13.1 per cent in Canada; 5.6 per cent in Australasia; and 3.2 per cent in Asia. Cargo to the United States, South America, and Australasia, showed increases of 203,752 tons, or 29.7 per cent; 65,663 tons, or 13.0 per cent; and 16,230 tons, or 17.9 per cent, respectively, over the amounts coming from these regions in March, 1928. Cargo

from the United States also showed a larger proportion of the total in March, 1929, while the proportion of the totals from South America and Australasia was approximately the same as in March of last year. Cargo from Canada and Asia decreased relatively as well as in actual tonnage in the amounts of 38,390 tons, or 13.3 per cent, and 22,854 tons, or 24.1 per cent, respectively.

Destination—Segregated according to destination, 55.5 per cent of the cargo in this direction went to ports of the United States and 41.0 per cent to Europe. To the United States this is a relative as well as an actual increase of 149,363 tons, or 16.4 per cent, over March, 1928, and to Europe an actual increase of 79,478 tons, or 11.4 per cent. The proportion of the whole of that destined to Europe was approximately the same as that routed in that area in March, 1928.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 88 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 12 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Pacific-bound commodities which aggregated more than 10,000 tons for March, 1929, or March, 1928, are listed in the following tabulation, showing differences:

Commodity.	March 1929.	March 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Ammonia	12,103	9,291	+2,812
Automobiles	26,012	14,164	+11,848
Cement	18,103	23,127	−5,024
Coal and coke	7,312	33,410	−26,098
Cotton	27,243	9,581	+17,662
Flour	23,845	2,237	+21,608
Manufactured goods:			
Iron and steel	195,726	173,738	+21,988
Machinery	18,880	20,172	−1,292
Railroad material	23,565	19,234	+4,331
Textiles	11,815	10,195	+1,620
Tinplate	24,258	20,636	+3,622
Miscellaneous	19,370	7,110	+12,260
Metals, various	13,102	3,307	+9,795
Oils, mineral	89,506	54,399	+35,107
Paper	16,851	16,519	+332
Phosphates	28,214	23,078	+5,136
Slag	1,731	13,545	−11,814
Sugar	14,140	4,515	+9,625
Sulphur	14,756	36,829	−22,073

The above 19 commodity groups comprise 69 per cent of the cargo from the Atlantic to the Pacific during March, 1929. Fourteen of the items showed increases while 5 registered decreases. The heaviest increases were iron and steel and mineral oils, while coal and coke, sulphur and slag showed the heaviest losses.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 98 per cent of all cargo moving from the Pacific to the Atlantic during the month of March, 1929. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	March 1929.	March 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Asphalt	13,962	11,647	+2,315
Barley	25,022	12,715	+12,307
Beans	10,155	27,163	−17,008
Canned goods (fish, fruit, vegetables, etc.)	78,075	69,544	+8,531
Coffee	20,784	23,248	−2,464
Cold storage (food products) [1]	42,281	35,581	+6,700
Copra	8,961	11,665	−2,704
Cotton	11,838	8,803	+3,035
Fruit, dried	23,580	16,800	+6,780
Fruit, fresh	28,747	9,988	+18,759
Lumber	224,594	270,068	−45,474
Metals, various	55,171	43,431	+11,740
Nitrates	257,832	276,837	−19,005
Oats	6,200	11,109	−4,909
Oils, mineral	484,493	256,592	+227,901
Ores (principally iron)	171,834	139,554	+32,280
Rice	10,852	879	+9,973
Sugar	59,657	83,302	−23,645
Wheat	224,405	253,970	−29,565
Wool	24,173	26,042	−1,869

[1] Does not include fresh fruit.

The above 20 commodity groups comprise almost 94 per cent of the cargo from the Pacific to the Atlantic during March, 1929. Eleven of the items showed increases and 9 decreases. The heaviest increase was in mineral oils.

(**Continued on page 538.**)

United States Intercoastal Traffic by Commodities for March, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for March, 1929, and the totals for March, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. The figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Aeroplanes	100	.....	100
Agricultural implements	650	50	700
Alfalfa meal	.....	325	325
Asbestos	218	.....	218
Asphalt	164	126	290
Automobiles	2,553	68	2,621
Automobile accessories	609	.....	609
Barley	.....	160	160
Beans	.....	5,720	5,720
Borax	.....	1,358	1,358
Bran	.....	180	180
Bricks	480	.....	480
Burlap	146	.....	146
Calcium carbide	95	.....	95
Camphor	.....	218	218
Canned goods:			
Fish	301	9,383	9,684
Fruit	1,061	32,268	33,329
Meat	95	1,187	1,282
Milk	.....	575	575
Soup	1,896	.....	1,896
Vegetables	590	7,852	8,442
Miscellaneous	5,070	5,197	10,267
Carbon black	183	112	295
Celite filtercel	.....	943	943
Cement	1,273	146	1,419
Charcoal	87	50	137
Chemicals	3,478	1,091	4,569

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
China and fire clay	72		72
Coal	3,463		3,463
Cocoa	242		242
Coconuts		55	55
Coffee	317	30	347
Cold Storage:			
Lard	935		935
Meat	69		69
Other	224		224
Confectionery	388		388
Copra		350	350
Cork	68		68
Cotton	475	4,148	4,623
Drugs	739	127	866
Earthenware	245	23	268
Eggs, dried		30	30
Explosives	160	120	280
Fertilizer	496	69	565
Flour	139	5,856	5,995
Fruit, dried		13,035	13,035
Fuller's earth	500		500
Furniture	423		423
General	41,623	16,648	58,271
Glass and glassware	2,182	12	2,194
Glue		15	15
Granite	20		20
Hair		50	50
Hardwoods	479	501	980
Hay		111	111
Hemp	132	811	943
Honey		26	26
Hops		33	33
Ink	159		159
Jute	95		95
Kapok		17	17
Linoleum	1,269	112	1,381
Liquors	65		65
Lumber	3,253	164,265	167,518
Malt	194		194
Manufactured goods:			
Iron and steel	111,517	460	111,977
Machinery	6,245	415	6,660
Railroad material	7,865		7,865
Tinplate	12,953		12,953
Textiles	3,706	127	3,833
Miscellaneous	14,037	2,582	16,619
Marble	181		181
Matches	68		68
Metals:			
Antimony		391	391
Copper	50	4,198	4,248
Iron	3,166		3,166
Lead	25	29	54
Scrap	296	146	442
Zinc		85	85
Other	9	78	87
Milk, powdered		194	194
Molasses	191		191
Nitrates	100		100
Nuts	43	275	318
Oats	15		15
Oils:			
Cottonseed	153		153
Crude	20	26,187	26,207
Gas oil, fuel oil		32,002	32,002
Gasoline, benzine, naphtha	100	220,046	220,146
Kerosene		34,128	34,128
Linseed	68		68
Lubricating and greases	7,347	258	7,605
Olive	38		38
Vegetable	95	3	98
Wood	26	37	63
Other	136	15	151
Ores:			
Copper		936	936
Lead	2,600		2,600
Magnesite		2,271	2,271
Manganese	22	200	222
Zinc		450	450
Other	100	240	340
Paint	447	211	658
Paper	5,272	2,199	7,471
Paper pulp	34	4,298	4,332
Peanuts	49	976	1,025
Peas		123	123

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Phosphates	1,804	720	2,524
Porcelain	344	525	869
Quicksilver	.....	3	3
Rags	55	428	483
Rice	842	70	912
Rope	217	12	229
Rosin	554	.....	554
Rubber:			
Manufactured	1,620	91	1,711
Scrap	.....	65	65
Salt	214	134	348
Seeds:			
Hemp	.....	143	143
Other	55	5	60
Shells	638	.....	638
Silk	.....	233	233
Skins and hides	73	2,123	2,196
Slate	38	.....	38
Soap	3,336	84	3,420
Soda	226	.....	226
Soda ash	279	.....	279
Soda, caustic	765	.....	765
Starch	137	.....	137
Sugar	313	5,859	6,172
Sulphur	11,044	.....	11,044
Syrup	2,289	.....	2,289
Talc	.....	171	171
Tallow	65	229	294
Tar	460	.....	460
Tea	12	27	39
Tobacco	1,781	355	2,136
Turpentine	52	.....	52
Vegetables	259	11	270
Waste	15	114	129
Wax	83	24	107
Wheat	114	707	821
Wine	105	80	185
Wool	90	1,433	1,523
Zinc Oxide	16	.....	16
Totals, March, 1929	282,344	620,659	903,003
Totals, March, 1928	260,212	479,572	739,784
Totals, March, 1927	281,436	652,065	933,501

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Three Weeks Ending April 13, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged.	Laded.
				Tons.	*Tons.*
City of Panama	Panama Mail S. S. Co	.....	March 24	.....	2,162
Floreana	Colombian Transp. Co	.....	March 24	.....	438
Brielle	Royal Neth. S. S. Co	.....	March 24	.....	198
Wanks	Stand. Fruit S. S. Co	.....	March 24	.....	[2]
Notre Dame de Fourviere	French Line	.....	March 24	.....	427
Saramacca	United Fruit Co	.....	March 24	.....	29
Santa Tecla	N. O. & S. A. S. S. Co	.....	March 24	.....	100
Coppename	United Fruit Co	March 24	March 25	52	106
Sachsen	Hamburg-American Line	March 24	March 25	[1]	265
Heredia	United Fruit Co	.....	March 25	.....	80
Santa Maria	Grace Line	March 25	March 25	149	497
Lobos	Pacific Steam Nav. Co	March 25	March 26	45½	298
Crijnssen	Royal Neth. S. S. Co	March 25	March 26	155	216
Orazio	Italian Line	March 25	March 26	432	69
Perene	Peruvian Line	March 25	March 27	4	255
Camden	United Fruit Co	March 26	March 27	9,174	[2]
Grootendijk	Holland-American Line	March 26	March 28	[1]	261
Carl Legien	Hamburg-American Line	March 26	March 29	105	578
Salvador	Pacific Steam Nav. Co	March 27	.....	1,025	.....
Ariguani	Elders & Fyffes, Ltd	March 27	March 27	4	81
Wayfarer	T. & J. Harrison	March 27	March 27	549	[2]
Visurgis	Panama Mail S. S. Co	.....	March 27	.....	2,192
Metapan	United Fruit Co	March 27	March 28	823	504
Esparta	United Fruit Co	March 27	March 28	1,522	117¾
Mayari	United Fruit Co	March 27	March 29	2,330	[2]
Pacific Pioneer	Furness, Withy & Co	March 27	March 29	11	325
Ancon	Panama R. R. S. S. Line	March 27	March 31	4,740	916

[1] No cargo discharged.

[2] No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Arkansas	French Line	March 28	March 28	221	18
Lagarto	Pacific Steam Nav. Co	March 28	March 28	22	54
Calamares	United Fruit Co	March 28	March 29	307	383
Ebro	Pacific Steam Nav. Co	March 28	March 29	12	7
Crijnssen	Royal Neth. S. S. Co	March 28	March 30	7½	398
Orbita	Pacific Steam Nav. Co	March 29	March 29	2	(2)
Coppename	United Fruit Co	March 29	March 29	125	300¾
Suriname	United Fruit Co	March 29	March 29	916	183
Cali	North German Lloyd		March 30		722¾
Cid	Pacific Steam Nav. Co	March 29	March 30	(1)	55
Atlantida	Stand. Fruit S. S. Co	March 29	March 30	399	442
Cauca	National Navigation Co	March 29		247	
Virgilio	Italian Line	March 29	March 31	134	1,451
William M	R. Feuillebois	March 30	March 30	(1)	25½
Heinrich Arp	Colombian Mar. Co	March 30	March 30	232	(2)
Martha	H. C. Stevenson		March 30		811
Esparta	United Fruit Co	March 30	March 31	¼	13
Wanks	Stand. Fruit S. S. Co	March 30	March 31	85	7
Cartago	United Fruit Co	March 31		226	
Venezuela	Panama Mail S. S. Co	March 31		587	
Acajutla	Pacific Steam Nav. Co		March 31		1,126
Cartago	United Fruit Co		April 1		270
Essequibo	Pacific Steam Nav. Co	April 1	April 1	33	(2)
Alvarado	Pacific Steam Nav. Co	April 1	April 2	69	204
Los Angeles	Hamburg-American Line	April 1	April 2	(1)	323
Isis	Hamburg-American Line	April 1	April 2	62	379
El Salvador	Panama Mail S. S. Co	April 1	April 2	551	328
Cauca	National Navigation Co		April 2		197
Venezuela	Panama Mail S. S. Co		April 2		403
Peru	French Line	April 1	April 3	209	597
Linda S.	R. Feuillebois	April 2	April 2	(1)	24
Knute Nelson	Norway-Pacific Line	April 2	April 3	1	180
Swiftwind	C. D. Mallory & Co	April 2	April 3	11,734	(2)
La Perla	United Fruit Co	April 2	April 4	1,021	226
Wiegand	Roland Line	April 2	April 4	37	149
Marques de Comillas	Spanish Line	April 2	April 6	184	293
Manizales	North German Lloyd	April 2	April 6	769	653
Cellina	Nav. Libera-Triestina	April 3	April 3	156	(2)
Orita	Pacific Steam Nav. Co	April 3	April 4	153	229½
Dinteldijk	Holland-American Line	April 3	April 4	(1)	92
Iriona	United Fruit Co	April 3	April 4	858	3
Canada	Johnson Line	April 3	April 3	(1)	195
Mayan	Gulf-Caribbean Line	April 3	April 3	153	(2)
Sixaola	United Fruit Co	April 3	April 4	726	326
Texas	French Line	April 4	April 4	108	17
Corinto	Panama Mail S. S. Co	April 4		1,638	
Camden	United Fruit Co	April 4	April 6	9,046	(2)
Pastores	United Fruit Co	April 4	April 5	1,577	308
Baralt	Royal Neth. S. S. Co	April 4		500	
Salvador	Pacific Steam Nav. Co		April 5		1,071
Guayaquil	Panama R. R. S. S. Line	April 4	April 6	824	4
Suriname	United Fruit Co	April 5	April 5	120	408
Borga	Fred Olsen & Co	April 5	April 5	(1)	210
Trigonia	Anglo-Saxon Pet. Co	April 5		8,552	
Amapala	Stand. Fruit S. S. Co	April 5	April 6	302	587
J. A. Moffett	Standard Shipping Co	April 6		16,500	
La Perla	United Fruit Co	April 6		1	
Parismina	United Fruit Co	April 6		277	
Curaca	Grace Line	April 6		48	
Kuma Maru	Nippon Yusen Kaisha	April 6	April 6	121	(2)
Wanks	Stand. Fruit S. S. Co	April 6		160	
Indiana	French Line	April 6		15	
Almelo	Royal Neth. S. S. Co	April 6		359	
Barneveld	Royal Neth. S. S. Co	April 6	April 6	170	2
Mayari	United Fruit Co	April 6	April 6	78	1,555
Novian	Leyland S. S. Line		April 5		137
Baralt	Royal Neth. S. S. Co		April 7		97
La Perla	United Fruit Co		April 7		21
Indiana	French Line		April 7		57
Peursum	Royal Neth. S. S. Co		April 7		325
Almelo	Royal Neth. S. S. Co		April 7		401
Rugia	Hamburg-American Line		April 7		1,012
Saint Andre	French Line	April 7	April 8	310	197
Parismina	United Fruit Co		April 8		175¾
Mantaro	Peruvian Line	April 7		1,998	
Santa Elisa	Grace Line	April 8	April 8	19	134
Louqsor	French Line	April 8	April 8	(3)	(2)
Iriona	United Fruit Co	April 8	April 8	175	(2)
Meissonier	Royal Mail Steam Packet Co	April 8	April 9	24	30
Wanks	Standard Fruit S. S. Co		April 9		6
Ulua	United Fruit Co	April 8	April 10	540	239
San Jose	United Fruit Co	April 8	April 10	574	292

[1] No cargo discharged. [2] No cargo laded. [3] One package.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Lubeck	Hamburg-American Line	April 9	April 9	266	(2)
Nosa King	N. O. & S. A. S. S. Co	April 9	April 9	52	537
Uribe	Colombian Mar. Co	April 9		483	
Buenaventura	Panama R. R. S. S. Line	April 9	April 10	562	574
Maravi	United Fruit Co	April 9	April 11	871	25
Caldas	National Navigation Co	April 9	April 12	189	228
Stuyvesant	Royal Neth. S. S. Co	April 10	April 10	1	156
Cristobal	Panama R. R. S. S. Line	April 10		3,498	
Pacific Trader	Furness, Withy & Co	April 10	April 11	(1)	539
Santa Cecelia	Grace Line	April 10	April 11	2	90
Zacapa	United Fruit Co	April 10	April 11	492	415
Havel	North German Lloyd	April 11	April 11	(1)	131
Witell	North German Lloyd	April 11	April 12	124	270
Teutonia	Hamburg-American Line	April 11	April 12	251	156
Coppename	United Fruit Co	April 11	April 12	928	86
Calcutta Maru	Nippon Yusen Kaisha	April 11	April 13	1,152	196
Noorderdijk	Holland-American Line	April 11	April 13	664	48
Gundersen	United Fruit Co	April 12	April 12	62	382
Oroya	Pacific Steam Nav. Co	April 12	April 12	9	(2)
Jamaica	Pacific Steam Nav. Co	April 12		858	
Margarethe Cords	Colombian Mar. Co	April 12	April 12	100	(2)
Magellan	Pacific Steam Nav. Co	April 12	April 13	29	113½
Stuyvesant	Royal Neth. S. S. Co	April 12	April 13	1	279
Atlantida	Standard Fruit S. S. Co	April 12	April 13	458	671
Linda S	R. Feuillebois	April 13	April 13	(1)	42½
Finn	Colombian Mar. Co	April 13	April 13	50	(2)
Lisa	Hamburg-American Line	April 13		236	
Wanks	Standard Fruit S. S. Co	April 13		187	
Heredia	United Fruit Co	April 13		809	
Corinto	Panama Mail S. S. Line		April 13		1,808
Cerigo	Hamburg-American Line	April 11	April 13	1,152	196

[1] No cargo discharged. [2] No cargo laded.

Panama Canal Records.

A statement of various records made by traffic through the Panama Canal at different times was published in THE PANAMA CANAL RECORD of November 14, 1928. Since that time new records have been established with respect to several items, viz., commercial traffic for one month, largest day's commercial traffic in one direction, and lowest pro rata cost of tolls per ton of cargo. A revised statement is accordingly given below.

In statement published November 14, 1928, the vessels *Lebore* and *Marore*, drawing 35 feet 6 inches each and transiting July 23, 1925, and April 18, 1927, respectively, were shown as the commercial vessels of the greatest draft to have transited the Canal to date. This was an error, the *Chilore*, transiting March 25, 1928, having had a salt water draft of 36 feet.

In the tabulations directly following data are shown separately for merchant or commercial vessels and for naval vessels because they are different types of craft:

MERCHANT OR COMMERCIAL VESSELS.

Feature.	Record.	Vessel.	Date of transit.
Length	678.2 feet	Empress of Scotland	April 2, 1926.
Beam	83.2 feet	Malolo	November 2, 1927.
Draft	36 feet	Chilore	March 25, 1928.
Tonnage:			
Registered gross	27,132 tons	Belgenland	December 12, 1924.
Registered net	15,352 tons	Belgenland	December 12, 1924.
Panama Canal net	18,999 tons	Empress of Scotland	April 2, 1926.
United States net	13,769 tons	Empress of Scotland	April 2, 1926.
Tolls	$17,211.25	Empress of Scotland	April 2, 1926.
Cargo	22,000 tons crude oil	William Rockefeller	October 27, 1922.

NOTE.—The *Belgenland* has made 4 transits since December 12, 1924, and the *Empress of Scotland* has made 1 transit since April 2, 1926.

NAVAL VESSELS.

Feature.	Record.	Vessel.	Date of transit.
Length	888 feet	U. S. S. Saratoga	February 5, 1928.
Beam	107.9 feet	U. S. S. Saratoga	February 5, 1928.
Draft	33 feet 1 inch	U. S. S. Colorado	March 19, 1926.
Tonnage	44,799 tons displacement.	H. M. S. Hood	July 23 and 24, 1924.
Tolls	$22,399.50	H. M. S. Hood	July 23 and 24, 1924.

NOTE.—The U. S. S. *Lexington*, a sister ship of the U. S. S. *Saratoga*, transited on March 25, 1928.

In the following data the term "commercial traffic" includes all craft subject to payment of tolls except small vessels under 20 net tons, Panama Canal measurement. It does not include vessels in the public service of the Governments of the United States, Panama, and Colombia, and ships which transit the Canal solely for the purpose of having repairs made at the Balboa shops and dry dock, as such vessels are exempt from payment of tolls.

Largest year's commercial traffic:
Number of transits, 6,456, fiscal year 1928.
Panama Canal net tonnage, 29,458,634, fiscal year 1928.
Tolls, $26,944,499.77, fiscal year 1928.
Cargo, 29,630,709, fiscal year 1928.

Largest month's commercial traffic:
Number of transits, 603, January, 1929.
Panama Canal net tonnage, 2,771,280 tons, January, 1929.
Tolls, $2,502,815.12, January, 1929.
Cargo, 2,858,835 tons, January, 1929.

Largest day's commercial traffic:
Number of transits, 33, October 1, 1927.
Panama Canal net tonnage, 152,610 tons, November 15, 1927.
Tolls, $137,053.98, April 10, 1928.
Cargo, 163,202 tons, January 14, 1924.

Largest day's commercial traffic in one direction:
Number of transits, 22, Atlantic to Pacific, December 8, 1928.
Panama Canal net tonnage, 103,531 tons, Atlantic to Pacific, December 8, 1928.
Tolls, $86,224.78, Atlantic to Pacific, December 8, 1928.
Cargo, 133,757 tons, Pacific to Atlantic, May 2, 1924.

Largest number of transits in any one day:
Thirty-five Government and 22 commercial vessels, a total of 57 vessels, January 17, 1924.

Smallest day's commercial traffic occurred on November 18, 1924, on which the number of transits was 2; Panama Canal net tonnage, 2,870 tons; tolls, $2,865; and cargo, 2,809 tons.

The lowest pro rata cost of tolls per ton of cargo carried through the Canal on a commercial vessel is $0.2146 per ton, which occurred with the transit of the Swedish motor ship *Amerikaland*, on March 11, 1929, carrying a cargo of iron ore from Cruz Grande, Chile, to Baltimore, Md. On this transit the *Amerikaland* carried 21,800 tons of cargo and paid tolls of $4,678.75.

The fastest transit through the Canal, in 4 hours and 10 minutes, was made by the United States destroyer *Lawrence*, southbound, on December 2, 1917.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity ..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, March, 1929.—Continued from page 531.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. [1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America. [1]	Balboa, C. Z. [2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East. [1]	Total, Asia.	Australia.	New Zealand.	Australasia. [1]	Total, Australasia.		
NORTH AMERICA:																								
UNITED STATES—																								
North Atlantic ports	18,304	3,218	768	10,078	5,223	37,591	227,831	743	2,296		42	1,234	232,146	33,160	36,085	16,537	16,624	102,406	33,106	9,940		43,046	415,189	49.3
South Atlantic ports							2,993						2,938	4,803		303		1,055	6,221				9,157	1.1
Gulf ports	1,114	54	29	629	854	2,680	51,577	4,091				458	56,126	52,811	11,010	3,158	5,188	72,167	5,726		8,000	13,726	144,699	17.2
Totals, U. S.	19,418	3,272	797	10,707	6,077	40,271	282,344	4,834	2,296		42	1,692	291,208	90,774	47,458	19,695	22,867	180,794	38,832	9,940	8,000	56,772	569,045	67.6
Cristobal, C. Z. [2]	1,002	3,574	1,400	895	701	7,572	3,700		15,985				19,685				4	4					27,261	3.2
East coast of Canada								1,381					1,381	1,281				1,281	7,059	5,676		12,735	15,397	1.8
West Indies	16,190			2		16,192	3,735	90					3,825		3,768			3,768		6,890		6,890	30,585	3.6
East coast of Mexico and Central America							1,957						1,957	2,938				2,938	4,701			4,701	9,596	1.3
Totals, N. America	36,610	6,846	2,197	11,604	6,778	64,035	291,736	6,305	18,281		42	1,692	318,056	94,993	51,226	19,695	22,871	188,785	50,592	22,416	8,000	81,008	651,884	77.5
EUROPE:																								
British Isles	7,045	61	264	1,691	5,021	14,082	12,237	6,195	2,417				20,849							52,343		52,343	87,274	10.4
Belgium	3,477	485	458	1,933		6,353	10,182	1,342					11,524										17,877	2.1
France	122			194	48	364	491	1,278	21		136		1,926										2,290	0.3
Germany	3,175	2,319	15	2,332	3,532	11,373	3,044	796			249		4,089										15,462	1.8
Holland	2,491	42	103	421		3,057	2,113	120	1,700		120		4,053										7,110	0.8
Italy	71			92	1,723	1,886	1,764	460	146				2,370										4,256	0.5
Norway and Sweden	29				6,226	6,255	2,699	309	1,732		608		5,339										11,594	1.4
Spain and Portugal	16				61	77																	77	
Europe [1]	836			458	12,198	13,492	1,708	58	922				2,688										16,180	1.9
Totals, Europe	17,262	2,937	840	7,121	28,809	56,939	34,229	10,558	6,938		1,113		52,838							52,343		52,343	162,120	19.2
East Coast of South America	132	2,025				2,157	13,158	12,291					25,449	331				331					27,937	3.3
Grand Totals	54,004	11,778	3,037	18,725	35,587	123,131	339,123	29,154	25,219		1,155	1,692	396,343	95,324	51,226	19,695	22,871	189,116	50,592	74,759	8,000	133,351	841,941	100.0
Per cent of total cargo:																								
March, 1929	6.4	1.4	0.4	2.2	4.2	14.6	40.3	3.5	3.0		0.1	0.2	47.1	11.3	6.1	2.3	2.7	22.4	6.0	8.9	1.0	15.9	100.0	
March, 1928	6.5	1.3	0.3	2.4	4.1	14.6	43.9	1.5	2.5	1.0	0.2	1.5	50.6	8.1	4.9	2.3	3.0	18.3	8.1	7.6	0.8	16.5	100.0	
March, 1927	1.6	0.6	0.1	1.4	7.3	11.0	43.3	2.9	1.0	1.2		1.5	49.9	10.8	4.4	0.9	5.8	21.9	6.7	8.4	2.1	17.2	100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, March, 1929.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.										East coast of South America.	Egypt.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	East coast of Central America	Cristobal, C. Z. [2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe. [1]	Total, Europe.				
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																				
South America:																								
Chile	185,085	45,637	55,579	286,301		914		153	287,368	18,855	2,116	4	5,605	2,731	1,085		1,145		125,556	157,097			444,465	23.4
Colombia	746			746				3,993	4,739	11									88	99			4,838	0.2
Ecuador	7,184			7,184				2,039	9,223	1,065	529		18	68					279	1,959			11,182	0.6
Peru	39,015			39,015	25,875			2,157	67,047	8,799	690		1,785	522	1,050		9,361		17,627	39,834			106,881	5.7
West coast South America [1]	390			390					390	2,387									3,141	5,528			5,918	0.3
Totals, South America	232,420	45,637	55,579	333,636	25,875	914		8,342	368,767	31,117	3,335	4	7,408	3,321	2,135		10,506		146,691	204,517			573,284	30.2
North America:																								
West coast of Canada	26,511		1,068	27,579	1,438	1,804		5	30,826	83,049	9,790		3,390	22,152	15,413		10,242		75,204	219,240	400		250,466	13.1
West coast Central America	86			86		2	30	11,546	11,664					648	47		1,661		3,746	6,102			17,766	0.9
West Coast United States	586,781	14,751	19,127	620,659		5,349	587	3,063	629,658	147,145	682	44	5,734	51,201	12,315	230	1,537	8,120	31,081	258,089	542		888,289	46.8
Hawaii	3,163		67	3,230					3,230														3,230	0.2
Totals, North America	616,541	14,751	20,262	651,554	1,438	7,155	617	14,614	675,378	230,194	10,472	44	9,124	74,001	27,775	230	13,440	8,120	110,031	483,431	942		1,159,751	61.0
Asia:																								
China	4,224			4,224				177	4,401														4,401	0.2
Japan	3,789			3,789				4	3,793														3,793	0.2
Philippines	43,194		716	43,910					43,910														43,910	2.3
Far East [1]	2,312			2,312		7,450			9,762														9,762	0.5
Totals, Asia	53,519		716	54,235		7,450		181	61,866														61,866	3.2
Australasia:																								
Australia	4,645			4,645	170				4,815	11,420										11,420			16,235	0.9
New Zealand	5,236			5,236	917			167	6,320	65,245	2,899								2,833	70,977			77,297	4.1
Australasia [1]	2,750		4,441	7,191					7,191	2,940									3,263	6,203			13,394	0.7
Totals, Australasia	12,631		4,441	17,072	1,087			167	18,326	79,605	2,899								6,096	88,600			106,926	5.6
Grand totals	915,111	60,388	80,998	1,056,497	28,400	15,519	617	23,304	1,124,337	340,916	16,706	48	16,532	77,322	29,910	230	23,946	8,120	262,818	776,548	942		1,991,827	100.0
Per cent of total cargo:																								
March, 1929	48.1	3.2	4.2	55.5	1.5	0.8		1.2	59.0	17.9	0.9		0.9	4.1	1.6		1.3	0.4	13.9	41.0			100.0	
March, 1928	43.1	6.2	4.5	53.8	0.2	1.0	0.6	2.5	58.1	18.9	0.8	0.4	1.3	5.2	3.0	0.4	0.8		10.7	41.5	0.4		100.0	
March, 1927	49.1	4.2	2.2	55.5	3.0	2.6		4.9	66.0	17.1	0.1	0.1	0.9	1.1	1.3	0.5	0.9		10.3	32.3	1.3	0.4	100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessel furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 528.

PORT OF BALBOA.

* ARRIVALS.

Date.	Vessel.	Line.	From—
April 7	Dixie [42]	Pacific Fruit Co	Bayano River, R. P.
April 7	El Colon [43]	Hans Elliot	Darien, R. P.
April 7	Martha [44]	Chr. Hannevig	Pto. Armuelles, R. P.
April 7	Lucky Girl [43]	G. F. Gustafson	San Diego, Calif.
April 11	Dos Hermanos [43]	A. Valdez	Bayano River, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
April 7	Dixie [42]	Pacific Fruit Co	Panama Bay, R. P.
April 7	San Luis [43]	Chiriqui Land Co	Pto. Armuelles, R. P.
April 7	El Colon [43]	Hans Elliot	Panama Bay, R. P.
April 11	Dos Hermanos [43]	A. Valdez	Panama Bay, R. P.

[42] And barge. [43] Motor schooner. [44] Motor ship. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., April 24, 1929. No. 38.

Proposed New Service for Trade Between West Coast United States and Europe.

A bulletin issued by the Shipping Board under the date of April 11, 1929, states:

The Shipping Board today declared that American ship service from Pacific coast ports of the United States to the United Kingdom and Continental Europe is essential to the foreign trade of the United States, and took steps for the creation of such a service under private American ownership.

In a resolution bearing on this matter, the Board declares that seven motor ships sought by various interested parties for chartering as a basis for the new line are not available. It laid plans, however, for the sale of eight steamers of its fleet to be bought and converted to Diesel propulsion with the aid of the Shipping Board's Construction Loan Fund. In this manner it will be possible to inaugurate the service under private ownership with a fleet of 14-knot motor ships.

The vessels of the speed mentioned would be equipped with ample refrigerator space to meet the needs of the Pacific coast fruit trade and likewise would have accommodations for a limited number of passengers. Vessels of this character are essential to meet the competition of the many foreign lines already operating on this route.

Six of the vessels selected are of the *Abraham Lincoln* type, 12,980 deadweight tons, and the remaining two are of the *Courageous* type, 10,680 deadweight tons (as converted to Diesel propulsion).

New Ships for Grace Line's Colombia-Ecuador Service.

A new direct passenger and cargo service to Colombia (west coast) and Ecuador was inaugurated by the Grace Line on April 20, 1929, with the sailing from New York of the new motor vessel *Santa Inez*, to be followed eight weeks later by the sister ship *Santa Rita*. This will be the first direct service to those points by this line, as the ships now employed call at Caribbean ports of Colombia before passing through the Panama Canal. The new route will shorten the passage from New York to Buenaventura to 8½ days and to Guayaquil to 12 days.

The *Santa Inez* and *Santa Rita* are of 5,100 tons deadweight, 10,000 tons displacement, 370 by 53 feet and have space on each for 80 first-class and 48 intermediate passengers. They will run independently of the fortnightly service to Peru and Chile.

Prince Line Adds Vessels to United States-Far East Service.

It is reported that the Prince Line's service from the east coast of the United States to the Far East, via the Panama Canal, which is now operating on a 26-day sailing basis, is to be increased to a fortnightly service, starting with the sailing of the steamer *Imperial Prince* from New York, on April 20, 1929; and that the steamer *British Prince* and the motor ships *Cingalese Prince* and *Siamese Prince* are to be added to this service to maintain the fortnightly schedule.

CANAL WORK IN MARCH, 1929.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of March, 1929.

BALBOA HEIGHTS, C. Z., *April 20, 1929.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of March, 1929:

NUMBER OF TRANSITS.

During the month 536 commercial vessels passed through the Canal. In addition to these, 15 nonseagoing launches measuring under 20 tons, and 96 vessels belonging to the United States Government transited the Canal. There was also a transit of a Panaman Government vessel and 3 transits of vessels solely for repairs, on which no tolls were collected, making a total of 651 transits for the month, or a daily average of 21.

Tolls on the 536 commercial vessels amounted to $2,343,865.55, and on the launches to $144.24, a total of $2,344,009.79, or a daily average on all traffic of $75,613.22.

Total commercial traffic for the past month was higher by 14 transits and $131,904.35 in tolls than the traffic for the previous month, and higher by $120,494.98 than the tolls collected in March, 1928, although the number of vessels passing through last month was 6 fewer than those passing through during the corresponding month last year. Traffic for the first nine months of the current fiscal year has established a new record for cargo tonnage passing through the Canal, but the number of transits, net ship tonnage, and amount of tolls collected, are slightly lower than that for the same period last year.

The total number of craft of all kinds transiting the Canal during the month of March, 1929, as compared with the same month in 1928 and 1927, are shown in the following tabulation:

	March, 1929.	March, 1928.	March, 1927.
Commercial vessels	536	542	496
Noncommercial vessels (Army and Navy)	96	62	115
Launches under 20 tons measurement	15	13	19
Panaman Government vessels	1	3	.....
Vessel for repairs	3	4	.....
Totals	651	624	630

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Total.
Gatun	8	5	13
Pedro Miguel	37	32	69
Miraflores	39	30	69
Totals	84	67	151

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year, 1929, to the end of March, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927–8	1928–9	1927–8.	1928–9.	1927–8.	1928–9.	1927–8.	1928–9.
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	$2,215,515.99	$2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
September	540	487	2,532,942	2,295,053	2,397,753	2,313,011	2,294,432.34	2,111,230.56
October	567	557	2,585,752	2,515,380	2,717,646	2,582,477	2,380,115.97	2,274,945.30
November	559	527	2,591,717	2,468,297	2,488,882	2,501,630	2,369,267.99	2,225,937.48
December	589	579	2,616,728	2,698,140	2,573,828	2,714,987	2,398,459.75	2,443,029.39
January	540	603	2,422,770	2,771,280	2,372,061	2,858,835	2,212,752.50	2,502,815.12
February	547	522	2,460,111	2,428,530	2,660,425	2,550,498	2,253,755.37	2,211,961.20
March	542	536	2,441,077	2,567,961	2,428,662	2,743,768	2,223,370.57	2,343,865.55
Totals	4,936	4,846	22,571,666	22,500,282	22,519,672	22,982,497	20,621,711.03	20,421,937.10

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States Government, including merchant vessels chartered by the Government, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for March, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly averages for the calendar year 1928:

	March, 1929.	March, 1928.	March, 1927.	Average per month for calendar year 1928.
Number of vessels	536	542	496	528
Panama Canal net tonnage	2,567,961	2,441,077	2,413,999	2,411,953
United States net tonnage	1,965,046	1,890,273	1,899,427	1,851,471
Registered gross tonnage	3,230,243	3,065,448	3,080,929	3,029,975
Registered net tonnage	1,976,904	1,893,191	1,906,544	1,855,554
Tolls	$2,343,865.55	$2,223,370.57	$2,217,913.20	$2,197,996.86
Tons of cargo carried	2,743,768	2,428,662	2,533,525	2,450,132

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form; these averages cover commercial transits only:

	Average per day.			Average per day for calendar year 1928.
	March, 1929.	March, 1928.	March, 1927.	
Number of transits	17.29	17.48	16.00	17.31
Panama Canal net tonnage	82,837	78,745	77,871	79,080
Tolls	$75,608.57	$71,721.63	$71,545.59	$72,065.47
Tons of cargo carried	88,508	78,344	81,726	80,332

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during March, 1929, as compared with March, 1928 and 1927, are shown in the following tabulation:

	Average per vessel.		
	March, 1929.	March, 1928.	March, 1927.
Panama Canal net tonnage	4,791	4,503	4,866
United States net tonnage	3,666	3,488	3,829
Registered gross tonnage	6,026	5,655	6,211
Registered net tonnage	3,688	3,493	3,843
Tolls	$4,372.88	$4,102.16	$4,471.60
Tons of cargo (including vessels in ballast)	5,119	4,481	5,107
Tons of cargo (laden vessels only)	5,991	5,583	6,463

TOLLS.

At present tolls are collected at rates of $1.20 per net ton for laden vessels and 72 cents per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provision that tolls shall not exceed $1.25 per ton nor be less than 75 cents per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined both in accordance with the Panama Canal and the United States rules of measurement.

Due to this limiting proviso the tolls actually collected on laden vessels averaged $0.946 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of March, 1929, the following tabulation shows a comparison of tolls actually collected under the present method of assessing tolls with the tolls that would have been collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
British	$710,838.11	$749,555.00	$38,716.89	
Chilean	8,623.75	9,377.00	753.25	
Colombian	4,639.56	4,165.80		$473.76
Danish	12,210.00	14,808.00	2,598.00	
Danzig	22,102.05	21,174.00		928.05
Dutch	55,068.75	60,595.00	5,526.25	
French	29,291.25	30,505.00	1,213.75	
German	98,580.84	110,206.40	11,625.56	
Greek	21,280.85	22,886.00	1,605.15	
Italian	39,612.92	42,808.60	3,195.68	
Japanese	85,319.25	80,819.00		4,500.25
Norwegian	122,199.50	121,886.00		313.50
Panaman	14,045.84	14,594.20	548.36	
Peruvian	4,412.30	6,440.00	2,027.70	
Swedish	69,018.23	70,858.40	1,840.17	
United States	1,034,867.17	1,043,955.80	9,088.63	
Yugoslav	11,755.18	11,804.40	49.22	
Totals	2,343,865.55	2,416,438.60	78,788.61	6,215.56
Net increase for all traffic			72,573.05	

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$11,214.46
United States foreign trade	¹ 1,894.08
United States–Canal Zone trade	¹ 231.75
Net increase	9,088.63

¹ Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in March, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
British	.90	1.25	1.09
Chilean	.61	1.02	.81
Colombian	1.75	1.49	1.69
Danish	1.63	1.73	1.68
Danzig		1.77	1.77
Dutch	.67	1.49	1.26
French	.24	1.50	1.04
German	.83	1.25	1.08
Greek		1.90	1.90
Italian	.25	1.14	.80
Japanese	1.22	1.35	1.29
Norwegian	1.19	1.81	1.54
Panaman	.83	1.71	1.50
Peruvian	.30	1.03	.75
Swedish	.83	2.21	2.09
United States	.96	1.56	1.30
Yugoslav		1.90	1.90
Average, March, 1929	.93	1.48	1.25
Average, March, 1928	.87	1.50	1.23
Average, March, 1927	1.04	1.54	1.32

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of March, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	5	20,279	$21,643.75	48	270,303	$274,971.10
Ballast	41	222,744	160,448.73	2	8,237	5,930.64
General cargo ships:						
Laden	189	884,399	811,002.95	216	1,014,174	963,393.60
Ballast	30	141,979	102,238.00	3	5,427	3,935.10
Noncargo-carrying ships:						
Yachts	2	419	301.68	...	...	...
Totals	267	[1]1,269,820	1,095,635.11	269	1,298,141	1,248,230.44
Method of propulsion:						
Steam	205	963,119	852,088.82	221	1,056,446	1,021,740.29
Motor	62	306,701	243,546.29	48	241,695	226,490.15
Totals	267	1,269,820	1,095,635.11	269	1,298,141	1,248,230.44

Of the 426 steam-driven vessels, 282 were oil burning, 133 coal burning, and 11 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of March, 1929. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Aircraft tenders	...	...	...	1	[1]12,700	$6,350.00
Auxiliaries	...	...	...	1	[1]2,969	3,711.25
Battleships	...	...	...	7	[1]186,050	93,025.00
Cruisers	2	[1]6,400	$3,200.00	7	[1]48,850	24,425.00
Destroyers	...	...	...	23	[1]27,945	13,972.50
Destroyer tenders	...	...	...	2	[1]21,200	10,600.00
Launches	2	[1]20	15.00	...	...	...
Mine sweepers	1	[1]950	475.00	5	[1]4,750	2,375.00
Patrol vessels (Eagles)	...	...	...	2	[1]1,000	500.00
Repair ships	...	...	...	1	[3]3,714	4,642.50
Store ships	...	...	...	1	[3]3,394	4,242.50
Submarines	9	[1]9,070	4,535.00	20	[1]15,186	7,593.00
Submarine tenders	1	[1]1,496	1,870.00	2	[1]4,187	5,233.75
Tankers	1	[2]5,120	6,144.00	2	[2]10,360	12,432.00
U. S. Army vessels:						
Launches	1	[1]10	7.50	...	...	...
Mine planters	1	[1]1,208	604.00	...	...	...
Transports	2	[3]7,816	9,770.00	2	[3]7,816	9,770.00
Totals, U. S. Government	20	...	26,620.50	76	...	198,872.50
Panaman Government vessels:						
Transports	1	[1]101	72.72	...	...	...
Vessels for repairs:						
Tankers	2	[2]5,041	3,780.75	1	[1]1,246	934.50
Grand totals	23	...	30,473.97	77	...	199,807.00

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of March, 1929, carried cargo as follows: Atlantic to Pacific, 1,194 tons; Pacific to Atlantic, 279 tons; total, 1,473.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement transiting the Canal during the month of March, 1929. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific	10	76	$78.24
Pacific to Atlantic	5	58	66.00
Totals	15	134	144.24

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of March, 1929, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving....tons..	87,895	31,071	118,966
Local cargo shipped....tons..	9,889	1,304	11,193
Transit cargo arriving....tons..	2,754,995	2,893,692	5,648,687
Transit cargo clearing....tons..	2,766,943	2,869,034	5,635,977
Cargo received for transshipment....tons..	49,830	264	50,094
Cargo transshipped....tons..	54,838	191	55,029
"Canal Zone for Orders" cargo:			
Number of receipts issued	96	32	128
Number of withdrawals	58	377	958
Tons received	3,703	226	2,929
Tons withdrawn	2,966	294	3,260
Packages received	3,531	2,662	6,193
Packages withdrawn	10,220	4,489	14,709
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company	72	4	76
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company....tons..	25,484	120	25,604
Coal issued miscellaneous:			
Panama Canal departments....tons..	111	6	117
U. S. Army, including vessels....tons..	295	32	327
Individuals and companies....tons..	143	.....	143
Panama Railroad Company....tons..	.....	20	20
Transferred to Navy....tons..	178	.....	178
Total sales and issues....tons..	26,211	178	26,389
Coal on hand March 1, 1929....tons..	24,371	.....	24,371
Coal on hand April 1, 1929....tons..	31,098	.....	31,098
Coal received during month....tons..	32,938	.....	32,938
Coal received from Navy....tons	.....	178	178
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments....bbls..	6,016.27	25,834.11	31,850.38
Panama Railroad Company....bbls..	391.20	.....	391.20
U. S. Army and Navy....bbls..	523.80	130.01	653.81
Individuals and companies....bbls..	.....	439.31	439.31
Total sales and issues....bbls..	6,931.27	26,403.43	33,334.70
Fuel oil on hand April 1, 1929....bbls..	30,950.75	26,186.60	57,137.35
Diesel oil sold during March....bbls..	6,207.72	1,539.64	7,747.36
Diesel oil on hand April 1, 1929....bbls..	16,734.17	493.25	17,227.42
Miscellaneous transfers....bbls..	220.35	1,143.98	1,364.33
Gasoline and kerosene pumped for The Panama Canal....bbls..	2,073.53	3,887.09	5,960.62
Gasoline pumped for individuals and companies....bbls..	685.53	6,566.08	7,251.61
Oil pumped for individuals and companies....bbls..	484,526.61	551,555.31	1,036,081.92
Oil pumped for U. S. Shipping Board....bbls	.....	11,382.90	11,382.90
Oil pumped for U. S. Navy....bbls..	50,286.50	74,283.00	124,569.50
Total fuel oil, gasoline, and kerosene handled....bbls..	550,931.51	676,761.43	1,227,692.94
Admeasurement of vessels:			
U. S. equivalent certificates issued	19	2	21
Measured for Panama Canal net tonnage	5	2	7
Remeasured for Panama Canal net tonnage	17	1	18
Panama Canal net tonnage corrected	3	6	9
U. S. equivalent tonnage corrected	10	11	21
Services of harbor equipment:			
Tugs, total operating hours	490½	488½	978½
Launches, total operating hours	1,683½	2,212	3,895½
Revenue from tug service, pilotage, etc.:			
Tug revenue	15,173.75	14,602.50	29,776.25
Pilotage	21,652.00	9,423.00	31,075.00
Seamen	12,400.00	12,604.00	25,004.00
Launch service	2,369.00	3,405.00	5,774.00
Wharfage	19,231.57	5,584.58	24,816.15
Ships measured	120.00	50.00	170.00
Miscellaneous	1,029.00	902.00	1,931.00
Ships repaired at Panama Canal shops:			
Commercial	76	11	87
U. S. Army and Navy	7	3	10
Panama Canal equipment	6	8	14
Totals	89	22	111

	Cristobal.	Balboa.	Total.
Vessels dry-docked:			
Commercial	7	3	10
U. S. Army and Navy	2	1	3
Panama Canal equipment	1	4	5
Totals	10	8	18
Clearances issued	333	283	616
Bills of health issued	332	369	701

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships Entering.						
All vessels, including those transiting Canal	679	4,005,755	2,576,496	570	3,454,728	2,151,086
Vessels entering port but not transiting Canal	74	387,356	228,116	10	61,171	45,301
Vessels transiting Canal and handling passengers and cargo at terminal ports	123	700,082	438,762	91	545,615	325,581
Ships clearing.						
All vessels, including those transiting Canal	681	4,037,533	2,595,942	682	4,162,920	2,859,834
Vessels clearing port but not transiting Canal	76	402,869	238,595	64	489,135	471,001
Vessels transiting Canal and handling passengers and cargo at terminal ports	126	738,411	449,803	91	546,131	326,087

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,213	1,144	2,357	203	622	825
From Pacific ports	300	228	528	436	234	670
Total disembarking	1,513	1,372	2,885	639	856	1,495
Embarking:						
For Atlantic ports	1,813	959	2,772	188	150	338
For Pacific ports	392	149	541	482	319	801
Total embarking	2,205	1,108	3,313	670	469	1,139
Remaining on board:						
From Atlantic to Pacific ports	1,620	2,686	4,306	1,809	2,213	4,022
From Pacific to Atlantic ports	1,978	1,719	3,697	2,090	1,797	3,887
From Atlantic to Atlantic ports	2,811	56	2,867	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	33	350	383
Total remaining on board	6,409	4,461	10,870	3,932	4,360	8,292
Total arriving	7,922	5,833	13,755	4,571	5,216	9,787
Total departing	8,614	5,569	14,183	4,602	4,829	9,431

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	267	49	18.3
Pacific to Atlantic	269	61	22.6
Totals	536	110	20.5

In addition to the aforesaid, 63 passenger-carrying vessels called at the port of Cristobal and 3 at Balboa without transiting the Canal, making a total of 176 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of March, 1929:

	Ice	Groceries.	Cold Storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$3,234.63	$15,906.56	$38,533.33	$219.92	$8,001.87	$65,896.31
Government vessels	378.02	1,641.70	7,646.54	40.62	2,876.26	12,583.14
P. R. R. vessels	2.25	170.22	2,460.87	602.08	593.83	3,829.25
Total sales, March 1929	3,614.90	17,718.48	48,640.74	862.62	11,471.96	82,308.70
Total sales, March 1928	2,513.68	11,962.23	45,446.42	1,263.79	9,228.11	70,414.23
Total sales, March 1927	3,922.28	20,402.84	49,211.95	1,311.41	14,321.11	89,174.59
Sales at Balboa to:						
Commercial vessels	959.98	8,186.36	13,217.33	620.92	3,003.69	25,988.28
Government vessels	2,799.65	13,217.39	43,035.34	489.99	6,880.90	66,423.27
Total sales, March 1929	3,759.63	21,403.75	56,252.67	1,110.91	9,884.59	92,411.55
Total sales, March 1928	2,013.69	16,620.51	50,207.09	1,341.08	5,505.43	75,687.80
Total sales, March 1927	1,933.76	12,378.64	31,950.52	671.15	4,296.69	51,230.76

The aggregate sales to Government vessels during the month was $79,006.41; to Panama Railroad vessels, $3,829.25; and to other commercial vessels, $91,884.59, making the total sales to all vessels, $174,720.25.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of March, 1929, as compared with the corresponding month in 1928 and 1927:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.[1]					
	North.	South.	Total.	North.	South.	Total.	March 1929.	March 1928.	March 1927.
Gatun	257	243	500	33	6	39	539	535	524
Pedro Miguel	241	236	477	32	21	53	530	567	542
Miraflores	237	232	469	30	13	43	512	557	535
	Number of vessels put through locks.								
Gatun	271	267	538	94	39	133	671	646	661
Pedro Miguel	268	268	536	119	58	177	713	701	638
Miraflores	268	268	536	121	57	178	714	691	648

[1] Includes tolls-paying launches under 20 tons.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	98	93	93
Panama Canal equipment	13	69	69
Launches under 20 tons	18	11	12
Panaman Government vessels	1	1	1
Vessels for repairs	3	3	3

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in March, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,209,910,000	1,465,520,000	1,468,240,000
Maintenance			28,000,000
Leakage	30,000,000	30,500,000	20,000,000
Totals, March, 1929	1,239,910,000	1,496,020,000	1,516,240,000
Totals, February, 1929	1,574,820,000	1,389,390,000	1,486,900,000
Totals, March, 1928	1,725,210,000	1,566,650,000	1,627,010,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of March, 1929, are shown in comparative form in the following tabulation:

	March.		March—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.* [4]
Discharge of Chagres at Alhajuela	559	1,050	1,625	382	735
Maximum momentary discharge for the month	3,653	2,382	[1] 19,400		
Gatun Lake watershed, total yield	1,281	1,421	1,792	493	1,114
Gatun Lake watershed, net yield	293	518	823	402	124
Draft on Gatun Lake for lockages and power	[3] 1,757	2,620	2,740	[2] 1,148	[2] 1,957

[1] March 31, 1910. [2] Does not include March, 1914. [3] Approximately one-half of power load furnished by Miraflores plant.

The total yield of the Gatun Lake watershed for March was 15 per cent above the 16-year March average, or 1,281 c. f. s., compared with an average of 1,114 c. f. s. Maximum and minimum total yields of record for March are 1,792 c. f. s. in 1915 and 493 c. f. s. in 1926, respectively. The lake varied from elevation 85.09 feet on the 1st and 8th to 84.15 feet on the 31st, averaged 84.71 feet, and ended at elevation 84.17 feet. Miraflores Lake varied from elevation 53.25 feet on the 4th to 54.44 feet on the 11th and 21st, averaged 53.92 feet, and ended at elevation 54.05 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 6th, 9th, 11th, 19th and 20th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 2,489,400 kilowatt hours, and the computed water consumption was 2,030,131,185 cubic feet. Continuous service was maintained throughout the month. The Miraflores Diesel-electric station had a gross generator output of 2,908,800 kilowatt hours, with a fuel oil consumption of 5,611.11 barrels. In line with the policy of conserving Gatun Lake water, load was carried by this station daily during the month with the exception of the last three days. In addition to regular operation, considerable maintenance work was performed on the Diesel engines.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were completed on 24 vessels during the month. There were 305 work orders issued during the month, as compared with 295 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 89 vessels at Cristobal and 22 at Balboa. Ten vessels were dry-docked at Cristobal and 8 at Balboa. The U. S. S. *Swan* was docked, cleaned, and painted, and general overhaul of machinery and renewal of wood deck on forecastle, gun platform, and after main deck carried forward during the month. The S. S. *Oregonstar* was at Balboa shops for major repairs to main engine, and the S. S. *San Casto* was docked for annual overhaul to deck and engine-room machinery.

The installation of foundations for columns for the new machine shop at Cristobal was started during the month.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. On the Madden Road, 9,500 yards were cleared, and 16,500 cubic yards of material were moved in connection with the grading. At the site of Madden Dam the operation of diamond drills was continued throughout the month.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 793,791,500 gallons.

DREDGING DIVISION.

West Lirio slide showed some movement during the month of March and 59,500 cubic yards of slide material were excavated from that area. Cucaracha, South Cucaracha, East and West Culebra slides showed no movement during the month. There were no other slides and no delays to shipping during the month.

The total excavation during March was 786,800 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Project No. 2	2,450	28,600	31,050
Lirio slide	14,900	44,600	59,500
Cut maintenance	.....	500	500
Canal prism, Pacific entrance:			
Project No. 1	.....	27,900	27,900
Maintenance	614,900	7,700	622,600
Balboa inner harbor:			
Project No. 1	.....	40,750	40,750
Maintenace	4,500	.....	4,500
Totals	636,750	150,050	786,800

The new 24" Diesel-electric dredge *Las Cruces* worked the entire month of March in the Pacific entrance, excavating a total of 430,000 cubic yards, which was pumped through a pipe line averaging 5,260 feet in length, the maximum length being 6,990 feet. This was the first full month's operation of this new dredge.

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and forty-two trips were made, and 155 Panama Canal, 226 U. S. Army, and 5,514 other vehicles, a total of 5,895, were ferried across the Canal.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on March 31, 1929, totaled 21,659, composed of 7,573 Americans, 2,733 of whom were men, 2,268 women, and 2,572 children; 242 Europeans, 99 of whom were men, 37 women, and 106 children; and 13,844 West Indians, 4,160 of whom were men, 2,586 women, and 7,098 children. The total number of persons in quarters on March 31, 1928, was 21,440.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of March 20, 1929, with a comparison of the working force for the preceding month and for March, 1928:

	As of March 29, 1929.			Total employees.	
	Gold.	Silver.	Total.	February, 1929.	March, 1928.
Operation and Maintenance:					
Office	44	60	104	106	79
Electrical	153	196	349	350	348
Municipal Engineering	126	1,874	2,000	1,847	870
Lock Operation	279	1,134	1,413	1,419	889
Dredging	191	974	1,165	1,166	1,046
Mechanical	427	805	1,232	1,224	1,270
Marine	211	645	856	960	891
Fortifications	29	459	488	454	380
Totals	1,460	6,147	7,607	7,526	5,773
Supply Department:					
Quartermaster	198	1,927	2,125	2,135	1,951
Subsistence	8	118	126	128	121
Commissary	219	1,285	1,504	1,543	1,324
Cattle Industry	5	158	163	165	279
Hotel Washington	8	110	118	124	119
Transportation	68	221	289	287	289
Totals	506	3,819	4,325	4,382	4,083
Accounting Department	194	7	201	201	207
Health Department	267	809	1,076	1,081	1,179
Executive Department	516	297	813	813	788
Totals	977	1,113	2,090	2,095	2,174
Panama Railroad Company:					
Superintendent	48	264	312	334	303
Transportation	65	131	196	199	183
Receiving and Forwarding Agency	98	1,738	1,836	2,544	1,585
Coaling Stations	48	336	384	352	397
Totals	259	2,469	2,728	3,429	2,468
Grand totals, March, 1929	3,202	13,548	16,750	.....	.....
Grand totals, February, 1929	3,206	14,226	.....	17,432	.....
Grand totals, March, 1928	3,005	11,493	.....	.....	14,498

Additions to the gold force on the Isthmus in March were as follows: Employed in the United States, 5; reemployed in the United States, 2; employed on the Isthmus, 15; reemployed on the Isthmus, 14; total 36. Separations from the gold force totaled 36, as follows: Resigned, 9; discharged, 24; retired, 1; died, 2. At the end of the month there were on file 208 applications from residents on the Isthmus for employment.

VITAL STATISTICS.

A total of 162 deaths occurred during the month of March, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 15.01 per 1,000 population. The leading causes of death were: Pneumonia (broncho and lobar), 27; tuberculosis (various organs), 17; diarrhea and enteritis, 17; cancer (various organs), 11; and organic diseases of the heart, 11. There were 10 deaths from syphilis, 9 from apoplexy, 7 from acute and chronic nephritis, 1 from measles and 1 from dysentery. There were 26 deaths among nonresidents. These are not included in the above statistics.

There were 305 live births, and 15 stillbirths, reported during the month. Including still births, this is equivalent to an annual birth rate of 29.65 per 1,000 population. Deaths among children under 1 year of age numbered 37, giving an infant mortality rate based on the number of live births reported, of 121.31.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during March was 108, of whom 36 were employees (9 white and 27 colored), 12 were members of employee's families (3 white and 9 colored), 14 were Canal Zone agriculturists, 23 were other civilian nonemployees, and 23 were Army and Navy personnel. Of the 48 employees and members of employees' families, 42 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick. There were no deaths from malaria among residents.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $349,832.19, of which $336,034.95 was for the Department of Operation and Maintenance and $13,797.24 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to $55,238.97.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of February, 1929, as compared with February, 1928, and the figures for the first eight months of the current fiscal year as compared with the same period in the fiscal year 1928.

It is impossible to submit the figures for the month of March at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	February, 1929.	February, 1928.	To end of February.	
			This year.	Last year.
Tolls	$2,212,156.08	$2,251,741.17	$18,076,488.31	$18,396,993.60
Other receipts	319,427.53	294,401.87	2,639,843.89	2,352,302.90
Total transit revenues	2,531,583.61	2,546,143.04	20,716,332.20	20,749,296.50
Total transit expenses	1,082,417.78	1,026,708.33	8,514,379.88	8,010,584.05
Net transit revenues	1,449,165.83	1,519,434.71	12,201,952.32	12,738,712.45
Three per cent capital charge	616,523.36	612,660.82	4,927,806.06	4,890,536.75
Transit surplus	832,642.47	906,773.89	7,274,146.26	7,848,175.70
Business revenues	1,542,945.79	1,361,796.81	11,220,929.10	10,228.166.59
Business expenses	1,421,301.17	1,273,883.51	10,526,481.03	9,613,453.21
Net business revenues	121,644.62	87,913.30	694,448.07	614,713.38
Three per cent capital charge	61,164.61	61,705.83	512,648.70	512,697.72
Business surplus	60,480.01	26,207.47	181,799.37	102,015.66
Combined revenues	4,074,529.40	3,907,939.85	31,937,261.30	30,977,463.09
Combined expenses	2,503,718.95	2,300,591.84	19,040,860.91	17,624,037.26
Net revenues	1,570,810.45	1,607,348.01	12,896,400.39	13,353,425.83
Three per cent capital charge	677,687.97	674,366.65	5,440,454.76	5,403,234.47
Combined surplus	893,122.48	932,981.36	7,455,945.63	7,950,191.36

Respectfully,

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 20, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.	Panama Canal tonnage.		
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Matakana	13	21 05	14	6 17	14	16 10	14	17 20	British	Shaw, Savill & Albion	477 5	63 0	26 8	Glasgow-England	Dunedin, N. Z	General	4,713	11,216	7,884
Olilo [2]	11	23 00	14	6 20	14	16 08	17	10 00	American	Geo. D. Fisk	58 5	10 8	3 6	Cartagena, Col	Balboa, C. Z	Ballast		18	12
Crown City [1]	13	23 00	14	7 20	14	17 49	15	00 50	American	Roosevelt S. S. Co., S. B.	410 0	54 0	22 0	New York, N. Y	Fremantle, Aust'lia	General	5,040	6,736	4,881
S-17 [4]	..	..	14	7 05	14	17 43	..	..	American	U. S. Navy	231 0	21 10	..	Cristobal, C. Z	Balboa, C. Z				
David McKelvy [1]	13	23 45	14	9 00	14	18 41	14	19 55	American	Tidewater Oil Co	430 0	59 0	20 0	New York, N. Y	Los Angeles, Calif	Ballast		7,629	5,325
Atlantic Sun [1]	14	3 05	14	9 50	14	19 30	14	21 10	American	Sun Oil Co	429 0	59 0	19 0	Tampa, Fla	Los Angeles, Calif	Ballast		7,568	5,283
Maliko	14	6 15	14	10 55	14	20 18	14	21 50	American	Amer.-Hawaiian Line	415 0	57 0	20 0	Boston, Mass	San Francisco, Cal	General	3,712	7,072	4,944
Mantaro	7	16 15	14	12 15	14	21 22	15	00 02	Peruvian	Peruvian Line	367 3	46 0	18 4	Cristobal, C. Z	Callao, Peru	General	110	4,838	2,959
Sunewco	14	7 20	14	12 10	14	21 27	14	22 55	American	Transmarine Lines	324 0	46 0	20 8	Mobile, Ala	Seattle, Wash	Iron, general	3,510	3,984	2,612
Ardenhall	14	8 35	14	14 05	14	22 12	15	00 02	British	Com'lth & Dom. Line	400 0	52 0	20 0	New York, N. Y	Adelaide, Australia	General	2,430	5,732	3,952
Oran	14	16 10	14	16 35	14	23 30	15	00 50	American	Oriental Navigation Co.	409 0	54 2	17 0	Philadelphia, Pa	Tacoma, Wash	General	2,559	6,755	4,887
Capt. C. S. Crowl [5]	..	..	14	..	14	12 31	..	..	American	U. S. Army	..	..	..	Cristobal, C. Z	Gatun, C. Z	(8)			
Limon [5]	..	..	14	..	14	8 43	..	..	American	J. J. Eckert	..	..	..	Cristobal, C. Z	Gatun, C. Z	(9)		2	2
Vencidor [5]	..	..	14	..	14	8 43	..	..	American	S. C. Dennly	..	..	..	Cristobal, C. Z	Gatun, C. Z	Ballast		2	2
Guatemala	14	3 00	15	6 15	15	13 05	16	1 28	American	Panama Mail S. S. Co.	360 0	51 0	22 7	New York, N. Y	San Francisco, Cal	General	2,484	5,776	4,081
Manila Maru	14	17 15	15	7 10	15	15 08	15	16 35	Japanese	Osaka Shosen Kaisha	475 0	61 0	23 6	Buenos Aires, Arg	Japan	(10)	5,022	10,075	7,292
Lisa	13	7 10	15	8 08	15	16 56	15	20 35	German	Hamburg-AmericanLine	384 4	51 9	17 0	Hamburg,Germany	Champerico, Guat	General	900	5,155	3,500
San Jose	15	2 50	15	8 17	15	16 46	15	17 55	American	United Fruit Co	330 0	44 5	19 6	Port Limon, C. R.	San Francisco, Cal	Bananas, coffee	754½	3,675	2,359
Buenos Aires [3]	15	00 10	15	8 45	15	18 38	15	23 50	Swedish	Johnson Line	440 0	56 0	23 0	Gothenburg, Swed	Honolulu, T. H	General	7,120	7,591	5,661
Watertown [4]	15	5 55	15	9 55	15	19 32	15	20 45	American	Cities Service Trans. Co.	416 9	56 2	16 0	Providence, R. I	Los Angeles, Calif	Ballast		6,717	4,778
Lycia [3]	15	6 15	15	10 30	15	21 07	15	22 15	British	Canadian Transp. Co	300 0	44 0	22 8	Cienfuegos, Cuba	Vancouver, B. C.	Sugar, general	4,109	3,333	2,207
Denver [6]	15	6 30	15	10 25	15	19 32	..	..	American	U. S. Navy	292 0	44 0	17 8	Bluefields, Nic	Balboa, C. Z				
Mundelta	15	8 20	15	11 35	15	21 16	15	22 15	American	Munson S. S. Line	370 0	53 2	24 6	Baltimore, Md	Tacoma, Wash	General	5,892	5,668	4,297
Republic [4]	15	13 07	15	13 20	15	22 08	16	00 34	American	Tidewater Oil Co	391 8	51 3	17 0	Baltimore, Md	San Francisco, Cal	Ballast		5,551	3,881
Uribe	9	17 05	15	17 15	16	1 15	16	2 37	Colombian	Colombian Mar. Co.	227 4	31 0	12 4	Cristobal, C. Z	Buenaventura, Col	General	550	1,154	663
Gen. Wm. M. Graham [7]	..	..	15	8 45	15	18 32	..	..	American	U. S. Army	156 0	32 0	..	Cristobal, C. Z	Balboa, C. Z				
Sciota [2]	15	15 50	15	17 45	16	13 50	..	..	American	U. S. Navy	149 3	30 0	..	Cristobal, C. Z	Balboa, C. Z	(11)			
Eclipse	15	23 25	16	6 30	16	16 45	16	18 05	American	Tampa Interocean Co.	440 0	56 0	27 0	New Orleans, La	Kobe, Japan	General	8,720	8,293	6,078
Oak Branch	15	23 50	16	8 45	16	17 32	16	20 00	British	F. & W. Ritson	385 0	49 0	19 10	Liverpool, England	Corral, Chile	General	3,274	5,209	4,035
Henry D. Whiton	16	00 50	16	9 50	16	18 28	16	20 00	American	Texas-Gulf Sulphur Co.	356 0	51 6	23 6	Mobile, Ala	Bellingham, Wash	Sulphur, coke	3,993	5,367	2,925
Atlantic	16	5 45	16	11 20	16	20 15	17	1 00	American	Isthmian S. S. Lines	410 0	54 3	23 6	Baltimore, Md	Tacoma, Wash	Steel, general	7,804	6,567	4,917
Canadian Cruiser	16	4 30	16	13 00	16	20 58	16	22 15	British	Can. Nat. Steamships	430 0	55 0	25 9	Halifax, N. S	Brisbane, Australia	General	3,374	7,680	5,518
Eastern Knight	16	12 30	16	14 00	16	21 50	16	23 26	American	Quaker Line	415 0	56 0	20 3	Philadelphia, Pa	Portland, Oreg	General	3,587	7,643	5,657

[1] Tanker. [2] Tug. [3] Motor ship. [4] Submarine. [5] Launch. [6] Cruiser. [7] Mine planter. [8] Towing barges. [9] Towing *Vencidor*. [10] Cotton, pig iron, etc. [11] Towing pontoons.

Handicap [1]	16	13 43	16	15.50	16	22.52	17	2.54	Norwegian	Bruusgaard Line	415.0	54.7	25.4	Antwerp, Belgium	Vancouver, B. C.	General	8,388	7,296	5,445
Silverhazel [1]	16	14.55	16	16.50	17	00.02	17	2.08	British	Silver Line Ltd.	425.0	58.0	23.0	New York, N. Y.	Yokohama, Japan	General, etc.	6,100	8,218	6,037
Marsodak	16	16.20	16	18.10	17	1.41	17	7.13	American	Charles Nelson & Co.	324.0	46.0	22.6	Baltimore, Md.	Seattle, Wash.	Steel, coal, gen.	3,730	3,984	2,628
Mexican	16	18.45	16	19.30	17	2.50	17	4.15	American	Amer.-Hawaiian Line	472.3	57.2	20.0	Boston, Mass.	Tacoma, Wash.	General	4,165	9,258	6,944
Yankee Arrow [1]	17	6 43	17	7.00	17	18 45	17	20.00	American	Standard Oil Co	468.0	62 6	19.0	Providence, R. I.	Los Angeles, Calif.	Ballast		9,841	6,946
Walter A. Luckenbach	17	3.00	17	7.50	17	20.05	17	21.04	American	Luckenbach Line	446.5	56.1	23.6	Boston, Mass.	Seattle, Wash.	General	4,630	8,785	6,567
El Panquiaco [10]	17	9.20	17	9.20	17	18.42			Panaman	Panaman Government	125.0	23.0		Colon, R. P.	Panama, R. P.	Ballast		288	101
Kellerwald	14	5.50	17	9.56	17	21.01	17	22.21	German	Hamburg-AmericanLine	399.4	54.0	23.6	Hamburg,Germany	Valparaiso, Chile	General	3,560	6,545	4,483
Pacific Fir	17	12.25	17	12.38	17	21.45	17	23.15	American	Dimon S. S. Corp.	410.5	54.0	22.6	New York, N. Y.	Tacoma, Wash.	General	6,204	6,624	4,883
Larchbank [1]	17	12.33	17	12.55	17	22.48	18	3.20	British	Bank Line, Ltd	420.0	53.9	24.0	Tampa, Fla	Shanghai, China.	(13)	7,171	7,093	4,994
Uganda	17	13.23	17	14.00	17	23.30	18	1.04	British	Wessel, Duval & Co.	402.5	52.2	19.0	New York, N. Y.	Talcahuano, Chile	General	1,889	5,593	4,069
Nitro	17	10.00	17	15.45	18	00.29	18	2.06	Italian	Soc. An. Comm. Italo.	406.0	48.8	15.8	Genoa, Italy	Valparaiso, Chile	General	715	5,742	4,180
China Maru	17	15.25	17	17.35	18	1.30	18	5.36	Japan	Kawasaki Kisen Kaisha	385.0	51.0	26.0	Baltimore, Md	Yokohama, Japan	General	5,799	5,924	4,395
Santa Maria [1]	18	3.40	18	9.35	18	16.02	19	00.40	American	Grace Line	466.0	64.0	23.0	New York, N. Y.	Talcahuano, Chile	General	3,169½	10,626	6,680
Woodfield	18	10.30	18	10.45	18	18.45	18	19.50	British	Canadian Transp. Co.	400.0	53.0	20.0	Cardenas, Cuba	San Francisco, Cal.	Sugar	5,018	5,798	4,118
Java Arrow [1]	18	15.15	18	15.25	18	23.11	19	00.40	American	Standard Oil Co.	468.6	62 6	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		10,084	7,388
Lebore	18	11.00	18	17.30	19	1.15	19	2.40	American	Ore S. S. Corp.	550.0	72.0	24.8	New York, N. Y.	Cruz Grande, Chile	Ballast		14,325	4,635
Hessen	18	8.37	18	19.00	19	2.07	19	3.21	German	Hamburg-AmericanLine	468.0	58.0	24.3	Hamburg,Germany	Seattle, Wash.	General	5,265	9,568	6,680
Slemmestad [1]	18	17.25	18	19.35	19	3.00	19	4.15	Norwegian	A. F. Klaveness & Co	375.0	53.6	26.0	Port Tampa, Fla	Shanghai, China.	Cotton, general.	6,652	6,256	4,663
Enem [12]	18	7.00	18	7.00	18	16.05	18	15.27	Nicaraguan	W. S. Bodden	49.5	12.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast		19	14
Jamaica	12	16.35	19	6.13	19	17.23	19	18.40	British	Pacific Steam Nav. Co	220.0	34.0	14.0	Cristobal, C. Z.	Champerico, Guat	General	809	1,187	622
William H. Doheny [1]	18	21.45	19	6.13	19	14.26	19	15.25	American	Huasteca Petroleum Co.	435.0	56.2	21.0	New Orleans, La.	Los Angeles, Calif.	Ballast		7,406	5,111
Virginia	19	5.45	19	6.55	19	15.28	20	00.51	American	Panama-Pacific Line	586.4	80.3	26.6	New York, N. Y.	San Francisco, Cal.	General	3,214	25,254	18,170
Baarn	17	14.45	19	8.30	19	17.27	19	18.40	Dutch	Royal Neth. S. S. Co.	400.0	58.0	27.0	Hamburg,Germany	Corral, Chile	General	5,625	7,819	6,101
President Polk	19	6.00	19	10.20	19	18.14	19	22.28	American	Dollar Line	502.1	62.2	25.10	New York, N. Y.	San Francisco, Cal.	General	5,383	12,660	9,254
Bienvenido	19	13.00	19	13.20	19	20.00	19	22.10	British	P. N. & J. N. Carranza	210.3	32.0	13.0	Guanta, Venez	Buenaventura, Col.	Cattle	103	1,345	806
Ludwigshafen	18	23.10	19	14.38	19	21.18	19	22.28	German	North German Lloyd	393.5	54.3	23.0	Bremen, Germany	Vancouver, B. C.	General	4,321	6,600	4,622
Sunugentco	19	17.37	19	17.55	20	1.10	20	2.39	American	Transmarine Lines.	324.0	46.2	20.4	Newark, N. J.	San Francisco, Cal.	Steel	2,000	3,984	2,628
Willkeno	19	20.05	19	20.30	20	4.03	20	10.49	American	Williams S. S. Line	415.0	55.7	27.5	Baltimore, Md.	Tacoma, Wash.	General	9,380	7,750	5,805
Limon	16	10.50	20	6.10	20	14.58	20	16.05	American	United Fruit Co	330.6	44.0	19.6	Cristobal, C. Z.	San Francisco, Cal.	Bananas, general	188	3,680	2,234
Belgium Maru	19	22.40	20	6.35	20	14.51	20	16.05	Japanese	Anglo-Chilean Ni'te Co.	385.0	51.0	13.0	Charleston, S. C.	Arica, Chile	Ballast		6,219	4,611
Antinous	19	5.35	20	8.00	20	16.22	20	17.00	French	Messageries Maritimes	413.0	56.0	22.3	Dunkirk, France.	Noumea, New Cal	General	2,469	7,643	5,364
Lancaster	20	10.20	20	10.40	20	18.40	21	00.55	American	Argonaut S. S. Co.	434.0	57.7	26.0	Baltimore, Md.	Tacoma, Wash.	Steel, general	9,237	7,935	5,841
Spinanger [14]	20	11.40	20	11.55	20	19.10	21	2.05	Norwegian	Westfal, Larsen & Co	440.0	57.0	19.3	Falmouth, England	Los Angeles, Calif.	Ballast		7,616	5,268
Stella	15	19.45	20	13.00	20	22.54	21	00.19	Norwegian	Panama Mail S. S. Co.	191.0	33.0	15.3	Cristobal, C. Z.	Puntarenas, C. R.	General	1,246	985	606
Cali	18	19.35	20	13.30	20	21.34	20	23.10	German	Roland Line	216.5	33.0	14.2	Cristobal, C. Z.	Guayaquil, Ecua'r	General	411	1,105	698
Harry Luckenbach	20	13.20	20	14.10	20	21.33	20	22.55	American	Luckenbach Line	448.9	62.0	25.0	Houston, Texas	Seattle, Wash.	General	6,100	9,262	6,853
Cissy	20	10.25	20	14.35	20	22.51	21	00.19	Norwegian	Isbrandtsen Moller & Co.	289.5	44.2	19.8	New York, N. Y.	Yokohama, Japan	General	1,800	2,937	2,080
Comono [5]			20		20	16.05			American	W. H. Babitt				Cristobal, C. Z.	Gatun, C. Z.	(14)		4	4
El Cajon [5]			20		20	16.05			American	W. H. Babitt				Cristobal, C. Z.	Gatun, C. Z.	Ballast		1	1

[1] Tanker. [12] Auxiliary yawl. [13] Phosphates, wax, and cotton. [14] Towing *El Cajon*.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Portland [3]	13	14.50	14	00.17	14	8.40	14	10.18	German	Hamburg-AmericanLine	462.2	61 2	25 6	Vancouver, B. C.	Hamburg,Germany	General	8,124	9,139	6,666
Watford	13	22.30	11	2.17	14	12.05	14	13.59	British	Watts, Watts & Co.	405.8	54.2	25.2	Tocopilla, Chile	Wilmington, N. C.	Nitrates	8,150		
Svealand [3]	13	14.55	14	5.34	14	14.50	14	14.50	Swedish	Axel Brostrom & Son	560.1	72.2	34.0	Cruz Grande, Chile	Baltimore, Md	Iron ore	21,654	15,425	4,421
Sunelseco	14	6.30	14	8.25	14	16.05	14	16.05	American	Transmarine Lines.	324.0	46.2	24.0	Vancouver, B. C.	New York, N. Y.	Lumber	3,831	3,984	2,612

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.	Panama Canal tonnage.		
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Cavalla	14	7 10	14	8 38	14	16 15	15	1 10	German	North German Lloyd	260 5	37 1	17 0	Champerico, Guat	Hamburg, Germany	General	1,511	1,714	938
Alaska	14	9 45	14	10 20	14	18 20	15	23 10	French	French Line	425 0	54 8	25 6	Vancouver, B. C.	Le Havre, France.	(17)	6,281	6,990	4,854
Tashmoo	14	11 45	14	12 38	14	21 00	14	21 00	American	Charles Nelson & Co.	324 0	46 2	22 0	Seattle, Wash	Baltimore, Md	Lumber, general.	4,300	3,984	2,628
Cauca [15]	14	12 45	14	13 20	14	21 00			Colombian.	National Navigation Co.	107 2	22 9	11 0	Buenaventura, Col.	Cristobal, C. Z	(18)	289	238	163
Canadian Conqueror	14	14 25	14	14 53	14	22 50	15	3 00	British	Can. Nat. Steamships	406 0	52 3	18 6	Auckland, N. Z.	Montreal, Canada	General	3,983	5,954	4,139
Homeside	14	16 50	14	22 22	15	10 25	11	11 55	British	Charlton S. S. Co.	384 0	52 2	23 0	Portland, Oreg	Lisbon, Portugal.	Wheat	7,165	5,127	3,718
Andreas K	14	22 30	15	00 26	15	10 35	15	10 35	Greek	Margaronis Bros.	361 0	46 2	25 2	Tocopilla, Chile	Azores [19]	Nitrates	6,000	4,367	3,161
Aconcagua	15	4.50	15	7.07	15	14 40	15	22 37	Chilean	Chilean Line	422 8	56 2	26 8	Valparaiso, Chile	New York, N. Y.	General	4,954	7,764	4,705
Sciota [16]			15	6.55	15	15.50	15	17.45	American	U. S. Navy	155 0	30 0		Balboa, C. Z	Cristobal, C. Z	(20)			
Herbjorn [1] [15]	14	23.00	15	7.41	15	15 45	15	15.45	Norwegian.	Anglo-Saxon Pet. Co.	441 1	59 2	25 5	Los Angeles, Calif	Land's End, Eng	Gasoline	9,499	8,085	5,725
Suscolanco	15	8.30	15	9 36	15	18.10	15	18.10	American	Transmarine Lines.	324 0	46 2	23 2	Aberdeen, Wash.	New York, N. Y.	Lumber	4,270	3,984	2,612
Stella	15	10.00	15	10.57	15	19.45			Norwegian.	Panama Mail S. S. Co.	195 1	32 9	13 7	Acajutla, Salvador	Cristobal, C. Z	Coffee	934	985	606
Edwin Christenson	15	12.45	15	13 50	15	22 40	16	1 15	American	Arrow Line	410 0	54 2	25 0	Portland, Oreg	New York, N. Y.	Lumber	7,687	6,603	4,732
Sheaf Mount	15	17.30	15	20.23	16	9 40	16	11 15	British	Sheaf Steam Ship. Co	420 0	54 1	24 1	Vancouver, B. C.	Denmark	Wheat	7,884	6,555	5,012
Willbabco	15	20.25	15	22.15	16	10 20	16	10 20	American	Williams S. S. Line	468 5	58 5	27 0	Seattle, Wash	New York, N. Y.	Copper, lumber.	9,200	8,460	6,162
Padilla	15	20.30	15	22 40	16	11.20	17	23 05	Colombian.	Colombian S. S. Co	247 2	43 5	9 0	Puntarenas, C. R.	Cristobal, C. Z	Ballast		2,206	1,506
Limon	15	20.45	15	23.35	16	10 50			American	United Fruit Co	330 6	44 5	17 7	San Francisco, Cal.	Port Limon, C. R.	Coffee, general	733	3,680	2,234
Suspearco	15	23 15	16	00 49	16	12 10	16	12 10	American	Transmarine Lines.	324 0	46 2	23 0	Longview, Wash.	New York, N. Y.	Lumber	4,500	3,984	2,612
Yoseric	16	1 00	16	1 56	16	12 18	16	12 18	British	Andrew Weir & Co	400 0	52 4	25 8	Antofagasta, Chile.	Pensacola, Fla.	Nitrates	7,549	5,786	4,092
Cape Verde	16	3.35	16	4.24	16	13 45	16	14 30	British	Lyle Shipping Co., Ltd.	405 3	53 5	25 7	Vancouver, B. C.	London, England	Wheat, lumber	7,221	5,756	4,118
Birk	16	4.40	16	5.37	16	15.00	16	17 25	Norwegian	Anglo-Chilean Ni'te Co.	359 8	52 1	23 6	Tocopilla, Chile	Pensacola, Fla	Nitrates	7,000	4,751	3,160
F. J. Luckenbach	16	5 30	16	6.28	16	15 45	16	15 45	American	Luckenbach Line	446 0	56 1	29 0	Portland, Oreg	Boston, Mass	Lumber, general.	7,643	8,508	6,179
Benlawers	15	20 24	16	7.12	16	17.25	16	18 35	British	W. Thompson & Co.	378 0	46 1	23 0	Vancouver, B. C.	Antwerp, Belgium	Wheat, lumber	5,074	4,246	3,068
Nuolja	16	6 00	16	8.12	16	18 15	16	18 15	Swedish	Grangesberg Oxelesund	418 8	55 1	29 2	Vancouver, B. C.	Rotterdam, Holland	Wheat, lumber	9,736	7,265	5,199
Cornwall	16	6 15	16	9.09	16	19 50	17	16 50	British	Federal Steam Nav. Co.	514 6	63 1	25 0	N. Plymouth, N. Z.	Liverpool, England	Frozen, general.	6,055	12,217	8,495
San Lamberto [1]	16	9 05	16	10.15	16	20.30	16	20 30	British	Anglo-Mexican Pet. Co.	395 3	55 2	21 0	Iquique, Chile	Curacao, D. W. I.	Ballast		6,741	4,345
Gaasterdijk	16	10 40	16	11 16	16	22.15	17	14 51	Dutch.	Holland-American Line.	450 0	58 2	28 6	Vancouver, B. C.	Antwerp, Belgium	General	8,826	9,038	6,164
Schwarzesee	16	13.50	16	15 31	16	23.10	17	00.35	German	W. Schuchmann	359 0	47 9	24 5	Corral, Chile	Antwerp, Belgium	(21)	6,986	4,654	3,359
Rushpool	17	2.35	17	3.35	17	11.35	17	13.35	British	Sir. R. Ropner & Co	420 1	54 1	23 2	Vancouver, B. C.	United Kingdom	Wheat	8,132	6,172	4,509
Kina	17	2.55	17	4 14	17	12 40	17	13.40	Danish	Knut Knutsen	373 9	51 8	26 0	Corral, Chile	Europe	General	7,480	6,090	4,623
Kelvinia	8	7 00	17	5 24	17	14.40	17	14 40	British	John Black & Co	435 6	57 7	26 0	Vancouver, B. C.	London, England	Wheat	7,769	7,858	5,517
Mongolia	16	12 50	17	6 13	17	14.20	17	14.50	American	Panama-Pacific Line	600 0	65 3	29 0	San Francisco, Cal.	New York, N. Y.	General	5,200	17,041	11,426
Chilore	16	23 00	17	7.35	17	16.55	17	16 55	American	Ore S. S. Corp	549 6	72 2	34 3	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	14,538	9,348
Ivo Racic	17	3.30	17	8 28	17	19.30	17	21 35	Yugoslav	Yugoslav Lloyd	350 4	49 1	23 0	Iquique, Chile	Spain	Nitrates	6,050	4,470	3,288
Honduras	17	5.00	17	8 49	17	18 25	18	13 20	French	French Line	404 9	51 7	25 7	Talcahuano, Chile	Le Havre, France.	General	7,023	6,020	4,312

[1] Tanker. [15] Motor ship. [16] Tug. [17] Wheat, copper, and general. [18] Coffee, hides, and general. [19] For orders. [20] Towing barge. [21] Copper, nitrates, and corn.

George Washington [15]	17	1	45	17	9	26	17	18	05	17	23	58	Norwegian	Fred Olsen & Co.	425	5	55	3	28	5	Vancouver, B. C.	Oslo, Norway	Wheat, general	8,494	7,505	5,627
Solana [1]	17	4	37	17	10	20	17	21	00	17	21	00	American	Associated Oil Co.	419	5	56	5	25	7	Los Angeles, Calif	New York, N. Y.	Gasoline	8,847	7,060	5,025
Pomona	17	5	45	17	11	12	17	21	20	17	21	20	American	Pomona S. S. Co.	440	0	56	0	29	0	Everett, Wash	Portsmouth, R. I.	Lumber	9,000	8,324	6,036
Pipiriki	17	9	00	17	11	58	17	22	35	18	4	00	British	Federal Steam Nav. Co.	472	5	59	3	24	0	Port Pirie, N. Z.	Bristol Chan. [19]	(21)	8,927	8,710	6,216
Port Freemantle [15]	17	4	40	17	13	57	17	22	30	17	22	30	British	Com'lth & Dom. Line	477	0	63	4	26	3	New Zealand	Hamburg, Germany	(25)	6,374	10,652	7,704
Munbeaver	17	14	00	17	15	33	18	8	50	18	8	50	American	Munson S. S. Lines	384	8	51	2	25	2	Tacoma, Wash	Baltimore, Md	Lumber, general.	6,200	5,571	4,033
Swan [22]	..	..	..	17	8	54	18	9	05	..	..	..	American	C. R. Ford	..	..	..	..	..	..	Balboa, C. Z	Cristobal, C. Z	..	..	..	..
Santa Isabel	18	3	00	18	3	51	18	11	45	18	18	45	American	Isthmian S. S. Lines	251	0	43	6	22	0	Hilo, T. H	Philadelphia, Pa.	Raw sugar	3,255	2,823	1,940
San Ugon [1]	17	19	35	18	4	52	18	12	50	18	12	50	British	Anglo-Mexican Pet. Co.	413	0	53	4	24	2	Los Angeles, Calif	Lizards, England [19]	Gasoline	7,435	5,976	4,609
Colombia	17	10	26	18	5	43	18	14	30	19	11	15	American	Panama Mail S. S. Co.	380	0	48	7	23	0	San Francisco, Cal.	New York, N. Y.	General	1,174	6,015	4,281
Lochkatrine [15]	17	17	10	18	6	24	18	15	35	19	00	15	British	Royal Mail S. P. Co	485	4	62	3	29	6	Vancouver, B. C.	Rotterdam, Holland	Grain, general.	9,332	10,802	7,595
Victolite [1] [15]	17	22	30	18	7	00	18	16	30	18	18	05	British	Imperial Oil, Ltd	510	2	68	2	30	0	Cabo Blanco, Peru.	Montreal, Canada	Crude oil	16,000	11,575	7,468
Markland [1] [15]	17	8	35	18	8	08	18	16	45	18	16	45	Norwegian	O. & A. Irgens	408	3	55	3	26	0	San Francisco, Cal.	Land's End, Eng	Gasoline	8,617	6,474	4,321
India Arrow [1]	18	9	20	18	9	58	18	17	40	19	1	20	American	Standard Shipping Co.	468	3	62	7	27	4	Los Angeles, Calif	Baltimore, Md	Gasoline	11,130	10,084	7,426
Cali	18	10	00	18	11	25	18	19	35	20	13	30	German	Roland Line	216	5	32	9	16	0	Guayaquil, Ecua'r	Cristobal, C. Z	(20)	869	1,105	698
Commercial Spirit	18	12	50	18	13	34	18	21	05	18	23	25	American	Moore & McCormick	380	4	53	1	23	4	Iquique, Chile.	New Orleans, La.	Nitrates	7,450	5,659	5,360
Chilcop	18	23	15	19	2	31	19	10	45	19	13	15	American	Chile S. S. Co	411	6	54	1	24	8	Antofagasta, Chile.	Norfolk, Va.	Nitrates	7,994	6,609	4,973
Astral [1]	19	2	30	19	3	17	19	11	55	19	11	55	American	Standard Transp. Co.	439	5	58	0	28	6	Los Angeles, Calif	Providence, R. I.	(22)	10,240	8,913	6,210
W. H. Libby [1]	19	8	00	19	9	07	19	18	50	19	18	50	American	Standard Shipping Co.	462	4	60	2	27	0	Los Angeles, Calif	New York, N. Y.	Gasoline	10,540	8,461	6,104
Gen. Wm. M. Graham	..	..	..	19	8	42	19	18	45	..	..	..	American	U. S. Army	160	2	32	0	..	..	Balboa, C. Z	Cristobal, C. Z	..	..	..	..
Kentuckian	19	9	26	19	10	12	19	20	05	19	20	05	American	Amer.-Hawaiian Line	414	5	53	7	26	3	Seattle, Wash	Boston, Mass	General	6,114	7,049	4,941
Martha [15]	7	8	00	19	12	15	19	21	09	..	..	..	Norwegian.	H. Stevenson	183	0	30	1	10	9	Pto. Armuelles, R.P.	Cristobal, C. Z	Ballast	..	780	504
Amerikaland [15]	19	13	10	19	15	40	20	15	55	20	15	55	Swedish	Ore S. S. Corp.	561	0	72	2	33	6	Cruz Grande, Chile	Baltimore, Md	Iron Ore	21,800	15,560	4,496
Willsolo	19	19	20	20	00	13	20	9	08	20	9	08	American	Williams S. S. Line	434	0	57	7	27	0	Gray's Harb. Wash.	Baltimore, Md	Lumber, general.	8,331	7,982	5,881
Sagadahoc	19	21	01	20	3	11	20	10	45	20	10	45	American	Argonaut S. S. Co	420	5	54	2	26	2	Seattle, Wash	Baltimore, Md	(28)	8,179	7,340	5,360
Nordbo [15]	20	3	20	20	5	56	20	14	00	20	13	05	Norwegian.	Isbrandtsen Moller Co.	380	0	53	9	25	2	Manila, P. I	New York, N. Y.	Sugar, coconut	7,750	6,190	4,569
Britte	20	11	10	20	11	48	20	19	18	21	10	15	Swedish	Colombian Mar. Co.	255	6	39	6	13	9	Buenaventura, Col.	New York, N. Y.	(29)	867	1,714	1,078
Edgar F. Luckenbach.	20	11	20	20	12	02	20	19	45	20	19	45	American	Luckenbach Line	425	0	57	3	31	0	Portland, Oreg	Mobile, Ala	Lumber, general.	8,171	8,568	6,648
Eleanor Christenson.	20	11	40	20	13	09	20	21	40	20	21	40	American	Christenson S. S. Co	410	5	54	3	24	0	Portland, Oreg	Baltimore, Md	Lumber	7,376	6,572	4,788
Mary Ann [24]	19	10	47	20	8	55	20	..	..	..	..	..	Panaman	United Fruit Co	..	..	..	..	..	..	Balboa, C. Z	Gatun Lake, C. Z.	(30)	..	..	..
No. 31055 [24]	19	10	47	20	8	55	20	..	..	..	..	..	Panaman	United Fruit Co	..	..	..	..	..	..	Balboa, C. Z	Gatun Lake, C. Z.	(31)	..	..	..
No. 31068 [24]	19	10	47	20	8	55	20	..	..	..	..	..	Panaman	United Fruit Co	..	..	..	..	..	..	Balboa, C. Z	Gatun Lake, C. Z.	(31)	..	..	..
No. 31072 [24]	19	10	47	20	8	55	20	..	..	..	..	..	Panaman	United Fruit Co	..	..	..	..	..	..	Balboa, C. Z	Gatun Lake, C. Z.	(31)	..	..	..
No. 31075 [24]	19	10	47	20	8	55	20	..	..	..	..	..	Panaman	United Fruit Co	..	..	..	..	..	..	Balboa, C. Z	Gatun Lake, C. Z.	(31)	..	..	..

[1] Tanker. [22] Launch. [24] Barge. [24] Concentrates and wool. [25] Refrigerated and general. [26] Cacao, coffee, and ivory nuts. [27] Kerosene distillate.
[28] Lumber, ore, and pulp. [29] Coffee, hides, and specie. [30] Towing barges. [31] Towed by *Mary Ann*.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 14	Ulua	United Fruit Co	Port Limon, C. R.	April 14	Vision [33]	F. E. Pernet	Habana, Cuba
April 14	Macabi	United Fruit Co	New York, N. Y.	April 14	Ulua	United Fruit Co	New York via Habana.
April 15	Toloa	United Fruit Co	New York via Habana.	April 14	Wanks	Standard Fruit S. S. Co	San Blas, R. P.
April 15	No. 9775 [32]	Pan-American Airways	Buenaventura, Colombia.	April 14	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
April 15	Pellerin de la Touche	French Line	Havre via wayports.	April 15	Heredia	United Fruit Co	New Orleans via wayports.
April 15	Antillian	Leyland Line	Liverpool via wayports.	April 15	Macabi	United Fruit Co	Puerto Colombia.
April 15	No. 9685 [32]	Pan-American Airways	Tela via wayports.	April 16	No. 9664 [32]	Pan-American Airways	Tela via wayports.
April 16	No. 9726 [32]	Pan-American Airways	San Jose, Costa Rica.	April 16	Laila	Gulf-Caribbean S. S. Line	Curacao via wayports.
April 16	Laila	Gulf-Caribbean S. S. Line	Houston, Texas.	April 17	William M. [34]	G. I. Bryan	Bluefields, Nicaragua.
April 17	Orinoco	Hamburg-American Line	Hamburg via wayports.	April 17	Toloa	United Fruit Co	Port Limon, C. R.
April 17	Suriname	United Fruit Co	New Orleans, La.	April 17	Antillian	Leyland Line	Moro (Santiago).
April 17	Santa Marta	United Fruit Co	New York via Kingston.	April 17	Anachucuna [35]	United Fruit Co	Colon, R. P.
April 17	Cundinamarca No. 33 [32]	Scadta Airplane Co	Barranquilla, Colombia.	April 17	Inapaquina [35]	United Fruit Co	Colon, R. P.
April 17	Colombia [32]	Scadta Airplane Co	Barranquilla, Colombia.	April 18	Annetta I. [35]	A. Tagaropulos	Colon, R. P.
April 17	Anachucuna [35]	United Fruit Co	Colon, R. P.	April 18	Suriname	United Fruit Co	Puerto Colombia.
April 17	Inapaquina [35]	United Fruit Co	Colon, R. P.	April 18	Cundinamarca No. 33 [32]	Scadta Airplane Co	Barranquilla, Colombia.
April 17	William M. [34]	G. I. Bryan	Colon, R. P.	April 18	No. 9775 [32]	Pan-American Airways	Maracay via wayports.
April 18	Annetta I. [35]	A. Tagaropulos	Colon, R. P.	April 18	No. 9685 [32]	Pan-American Airways	Tela via wayports.
April 18	Dorelian	Leyland Line	Port Limon, Costa Rica.	April 18	Santa Marta	United Fruit Co	New York via wayports.
April 19	Inapaquina [35]	United Fruit Co	Colon, R. P.	April 18	Orinoco	Hamburg-American Line	Port Limon, Costa Rica.
April 19	Amapala	Standard Fruit S. S. Co.	New Orleans via Habana.	April 18	Pellerin de la Touche	French Line	Havre via wayports.
April 19	Wanks	Standard Fruit S. S. Co.	San Blas, R. P.	April 19	Inapaquina [35]	United Fruit Co	Colon, R. P.
April 20	Coppename	United Fruit Co	Pto. Colombia via Bocas.	April 19	Dorelian	Leyland Line	Liverpool via wayports.
April 20	Orincco	Hamburg-American Line	Port Limon, Costa Rica.	April 20	Linda S. [36]	A. L. Surgeon	Bluefields, Nicaragua.
April 20	Macabi	United Fruit Co	Puerto Colombia.	April 20	Coppename	United Fruit Co	New Orleans, La.
April 20	Linda S. [36]	A. L. Surgeon	Colon, R. P.	April 20	No. 9664 [32]	Pan-American Airways	Tela via wayports.
April 20	Cartago	United Fruit Co	New Orleans via Habana.	April 20	Colombia [32]	Scadta Airplane Co	Colombian ports.
				April 20	Amapala	Standard Fruit S. S. Co	New Orleans via wayports.
				April 20	Orinoco	Hamburg-American Line	Hamburg via wayports.
				April 20	Macabi	United Fruit Co	New York via Kingston.

[32] Air-mail carrier. [33] Yacht. [34] Schooner. [35] Motor boat. [36] Motor schooner.

PORT OF BALBOA.

April 18	Queen of Scots [37]	A. J. Drexel	Puntarenas, Costa Rica.	April 19	El Colon [38]	Hans Elliot	Panama Bay, R. P.
April 19	El Colon [38]	Hans Elliot	Darien, R. P.	April 19	Dos Hermanos [38]	A. Valdez	Panama Bay, R. P.
April 19	Dos Hermanos [38]	A. Valdez	Bayano River, R. P.				

[37] Yacht. [38] Motor schooner. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

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Volume XXII. Balboa Heights, C. Z., May 1, 1929. No. 39.

Traffic Through the Panama Canal in April, 1929.

During the month of April, 1929, 540 commercial vessels and 41 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,281,087.27, and on the launches, $463.44, or a total tolls collection of $2,281,550.71.

The daily average number of commercial transits for the month was 18.00, and the average tolls collection $76,036.24, as compared with 17.29 transits and $75,608.57 in tolls for the previous month. The average amount of tolls paid by each of the commercial transits was $4,224.24, as compared with $4,372.88 for the month of March, 1929.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 10 months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 10 months of the fiscal years 1928 and 1927:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January	603	2,502,815.12	19.45	80,735.97
February	522	2,211,961.20	18.64	78,998.62
March	536	2,343,865.55	17.29	75,608.57
April	540	2,281,087.27	18.00	76,036.24
Totals, first 10 months of fiscal year 1929	5,386	22,703,024.37	17.72	74,681.00
Totals, first 10 months of fiscal year 1928	5,467	22,809,318.85	17.92	74,784.65
Totals, first 10 months of fiscal year 1927	4,549	20,192,381.41	14.93	66,422.31

As compared with the first 10 months of the fiscal year 1928, the corresponding period this year has had 81 fewer transits and $106,294.48 less tolls.

Trans-Isthmian Air Service Begun on May 1st.

The Pan-American Airways, Inc., has announced the inauguration of a passenger and express air service across the Isthmus, beginning May 1, 1929. A new 6-passenger, cabin-type, Fairchild model 71 airplane is scheduled to leave its passenger station at the west end of France Field, Cristobal, every day at 7.30 a. m., 11.30 a. m., and 4.30 p. m., for the Pacific side, and to leave Albrook Field, Balboa, for the Atlantic side half an hour later, daily at 8 a. m., 12 noon, and 5 p. m.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, April 27, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Pennsylvanian	21	5.35	21	6.38	21	13.46	21	14.45	American	Amer.-Hawaiian Line	407.7	53.7	21.0	Boston, Mass	Portland, Oreg.	General	3,618	7,107	5,041
Sutherland	21	4.00	21	7.35	21	15.02	21	16.15	American	Charles Nelson & Co.	380.0	53.2	20.0	Baltimore, Md	Seattle, Wash	Coal, steel	4,243	5,654	4,123
Hartside	21	6.00	21	8.25	21	17.18	21	19.13	British	J. J. Moore	367.0	50.6	21.2	Norfolk, Va	Sta. Rosalia, Mex	Coal	4,914	4,277	2,988
Point Fermin	21	16.50	21	17.30	22	00.12	22	1.46	American	Gulf-Pacific Line	324.0	46.2	20.5	New Orleans, La	San Francisco, Cal.	General	3,402	3,984	2,617
Paul Shoup [2]	21	17.05	21	17.40	22	1.19	22	2.28	American	Tidewater Oil Co	424.4	58.2	18.0	New York, N. Y.	San Francisco, Cal.	Ballast		7,333	5,182
Firmore	20	17.45	22	6.20	22	13.47	22	15.10	American	Ore S. S. Corp	449.1	57.2	23.2	Norfolk, Va	Cruz Grande, Chile	Ballast		7,847	5,185
El Lobo [1]	22	5.45	22	8.55	22	18.09			British	Atlantic Refining Co	385.2	51.0	20.0	Philadelphia, Pa.	La Libertad, Ecu'r	Ballast		4,851	3,326
Commercial Traveler	22	11.50	22	12.05	22	19.29	22	21.35	American	Moore & McCormack	380.0	53.2	18.6	Chester, Pa	Valparaiso, Chile				
Ruapehu	21	10.30	22	14.50	22	23.00	23	00.48	British	N. Z. Shipping Co	457.0	58.0	30.10	London, England	Lyttleton, N. Z.	(7)	3,667	5,657	4,133
Moerdijk	21	8.15	22	14.50	22	23.42	23	00.48	Dutch	Holland-AmericanLine	487.0	61.0	22.6	Rotterdam,Holland	Portland, Oreg.	General	7,878	9,079	6,798
Cleveland [2]	22	16.15	23	6.05	23	13.46			American	U. S. Navy	292.0	44.0	17.4	Cristobal, C. Z.	Balboa, C. Z.	Bananas, general	4,625	9,165	7,056
Santa Eulalia	23	2.30	23	6.15	23	13.51	23	15.15	American	American-Cuban Line	251.0	44.0	23.0	Baltimore, Md	Hilo, T. H	General	2,780	2,823	1,730
Tai-Yang [3]	22	20.45	23	7.10	23	15.12	23	16.15	Norway	Barber S. S. Line	461.0	60.0	25.9	New York, N. Y.	Tabaco, P. I.	General	7,184		
Nyanza	23	09.20	23	7.10	23	15.59	23	17.15	British	Wessel, Duval & Co	403.0	52.0	15.6	Charleston, S. C.	Iquique, Chile	Ballast		5,583	4,073
Tomislav [1]	23	8.28	23	9.05	23	16.50	23	18.35	Yugoslav	Baburizza & Co	403.0	52.0	16.0	Danzig	Caleta Colosa, Ch'e	Ballast		5,926	4,189
Anna Maersk [1 3]	23	12.45	23	14.50	23	21.55	24	1.32	Danish	A. P. Moller	390.0	53.0	17.0	Falmouth, England	Los Angeles, Calif.	Ballast			
Montrolite [1 3]	23	00.45	23	16.15	24	00.26	24	1.32	British	Imperial Oil Co., Ltd	510.0	68.2	21.0	New York, N. Y.	Talara, Peru	Ballast		11,555	6,753
Tatsuno Maru	23	18.10	23	18.25	24	3.48	24	5.20	Japanese	Nippon Yusen Kaisha	445.0	58.0	26.0	Baltimore, Md	Kobe, Japan	General	7,770	8,015	5,716
Felix Taussig	23	19.30	23	20.00	24	4.47	24	5.50	American	Norton, Lilly & Co	395.0	55.0	26.6	Baltimore, Md	Vancouver, B. C.	General	7,621	7,056	4,964
Arenosa [4]			23		23	18.25			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	(8)		8	8
No. 31080 [5]			23		23	18.25			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.			11	11
No. 31081 [5]			23		23	18.25			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.			11	11
No. 31082 [5]			23		23	18.25			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.			11	11
Hudson	23	9.35	24	6.05	24	14.52	24	16.26	French	French Line	396.0	50.8	24.2	Havre, France	Talcahuano, Chile	General	4,798	5,948	4,225
Peru [3]	23	20.50	24	7.15	24	15.45	25	2.59	Danish	East Asiatic Co	423.0	55.0	24.10	Aalborg, Denmark	Vancouver, B. C.	Coke, general	6,170	7,407	5,660
City of Windsor	24	6.40	24	8.55	24	18.30	24	20.00	British	Ellerman & Bucknall	447.5	57.8	25.0	New York, N. Y.	Fremantle, Aust'lia	General	6,043	8,691	6,637
El Ciervo [1]	24	7.28	24	10.05	24	19.28	24	20.45	British	Anglo-Ecaud'n S. S. Co	407.0	52.0	19.9	Philadelphia, Pa.	La Libertad, Ecua'r	Ballast		6,046	4,326
Charles Christenson	24	8.05	24	11.25	24	20.15	24	21.30	American	Arrow Line	409.0	54.0		Jacksonville, Fla.	Seattle, Wash	General	4,650	6,693	4,915
Dakotan	24	10.05	24	12.55	24	21.08	24	22.15	American	Amer.-Hawaiian Line	407.7	53.7	19.0	Boston, Mass	Seattle, Wash	General	3,081	7,156	5,094
Paul Luckenbach	24	10.35	24	14.35	24	22.02	24	23.10	American	Luckenbach Line	471.0	59.2	23.0	Boston, Mass	Seattle, Wash	General	4,657	9,027	6,539
San Lamberto [1]	24	16.30	24	17.15	25	1.22	25	2.48	British	Anglo-Mexican Pet. Co.	395.6	55.0	27.4	Curacao, D. W. I.	Antofagasta, Chile	Fuel oil	8,530	6,741	4,345
Gen. G. W. Getty [6]			24	7.30	24	15.42			American	U. S. Army	89.0	22.0		Cristobal, C. Z.	Balboa, C. Z.				
Wirral	24	10.45	25	6.20	25	16.19	25	17.10	British	Federal Steamship Co.	385.0	52.0	24.0	New York, N. Y.	Auckland, N. Z.	General	4,520	5,131	3,664

[1] Tanker. [2] Cruiser. [3] Motor ship [4] Launch. [5] Barge. [6] Tug. [7] Steel, automobiles, and general. [8] Towing barges.

Arana	24	13.20	25	6.07	25	16.16	25	17.10	British	Pacific Steam. Nav. Co.	303.0	43.0	17.6	New York, N. Y.	Callao, Peru	General	1,869½	2,851	1,776
Steel Ranger	24	22.20	25	7.10	25	18.06	25	19.15	American	Isthmian S. S. Lines	424.0	56.0	25.8	Baltimore, Md.	Shanghai, China	General	7,832	7,611	5,450
Massmar	25	00.10	25	9.25	25	19.23	25	20.46	American	Calmar S. S. Corp.	385.0	51.0	27.1	Baltimore, Md.	Seattle, Wash.	Steel, general	7,848	6,242	4,471
Pacific President [3]	24	14.00	25	10.45	25	20.24	25	21.40	British	Furness, Withy & Co.	450.0	61.0	20.7	Glasgow-England.	Vancouver, B. C.	Bananas, general	1,250	10,086	7,226
California Standard [1] [3]	25	11.35	25	11.45	25	21.11	26	1.27	American	Standard Oil Co.	513.6	68.2	21.0	Kiel, Germany	San Francisco, Cal.	Ballast			
Martha [3]	19	21.05	25	13.10	25	21.55	26	18.55	Norwegian	H. C. Stevenson	183.2	30.0	11.3	Cristobal, C. Z.	Pto. Armuelles, R.P	General	700	780	504
Lawbeath	25	15.35	25	18.00	26	2.15	26	3.47	British	Andrew Weir & Co.	385.0	52.0	23.10	Pt. Tarafa, Cuba	Auckland, N. Z.	Sugar	6,608	5,148	3,682
Santore	24	18.00	25	19.00	26	3.00	26	4.38	American	Ore S. S. Corp.	450.0	57.0	22.7	Norfolk, Va.	Cruz Grande, Chile	Ballast		7,808	5,139
Rolling Stone [9]	25	6.35	25	6.35	25	15.59			Panaman	Robert Wilcox	48.0	11.6		Cristobal, C. Z.	Balboa, C. Z.	Ballast		27	20
Essequibo	25	14.55	26	6.03	26	13.01	26	14.30	British	Pacific Steam Nav. Co.	450.0	58.0	26.2	New York, N. Y.	Talcahuano, Chile	General	3,668	9,158	6,176
Axel Johnson [3]	25	17.10	26	6.35	26	13.54	26	19.15	Swedish	Johnson Line	409.0	52.6	22.0	Stockholm, Swed'n	San Francisco, Cal.	General	5,231	6,642	4,860
Cauca [3]	14	21.00	26	6.16	26	14.00	26	20.52	Colombian	National Navigation Co.	107.4	22.1	9.1	Cristobal, C. Z.	Buenaventura, Col.	General	80	238	163
Irrawaddy	25	19.30	26	7.19	26	15.10	26	16.25	British	Funch Edye & Co.	370.0	51.0	17.0	New York, N. Y.	Fremantle, Aust'lia.	General	2,174	4,822	3,465
Havana Maru	26	5.35	26	8.43	26	17.30	26	18.44	Japanese	Osaka Shosen Kaisha	407.3	51.0	25.3	New York, N. Y.	Shanghai, China	General	6,847	6,538	4,769
Marore	25	4.15	26	13.28	26	20.04	26	21.42	American	Ore S. S. Corp.	549.0	72.2	21.9	Norfolk, Va.	Cruz Grande, Chile	Ballast		15,551	4,297
Buffalo Bridge	26	13.15	26	13.45	26	22.34	27	7.00	American	Charles Nelson & Co.	324.0	46.0	18.0	Baltimore, Md.	San Francisco, Cal.	General	2,500	3,985	2,630
Laurel	26	17.05	26	17.25	27	1.16	27	2.45	American	States Steamship Co.	426.5	54.0	12.0	Wilmington, Del.	Portland, Oreg.	Steel, general	5,349	6,756	4,874
Chateau Thierry [10]	26	4.15	26	20.10	27	2.56	29	7.15	American	U. S. Army	436.0	58.0	24.6	New York, N. Y.	San Francisco, Cal.	Army supplies	326		
San Mateo	22	21.31	27	6.07	28	1.16	28	2.45	American	United Fruit Co.	315.2	44.2	17.9	Cristobal, C. Z.	San Francisco, Cal.	Bananas, general	602	3,496	2,141
Santa Inez [3]	26	19.05	27	6.12	27	15.36	27	19.25	American	Grace Line	370.0	53.0	21.7	New York, N. Y.	Valparaiso, Chile	General	2,265		
Bridge [11]	27	6.05	27	7.15	27	17.30	27	18.33	American	U. S. Navy	400.0	55.0		Hampton Rds, Va	Balboa, C. Z				
Curaca	26	22.40	27	8.25	27	18.40	28	1.43	American	Grace Line	403.0	52.0	15.1	Savannah, Ga.	Tocopilla, Chile	Ballast		6,804	4,897
Boston Maru	27	3.10	27	8.55	27	19.31	27	20.42	Japanese	Kokusai Kisen Kaisha	400.0	53.0	25.0	Pensacola, Fla.	Yokohama, Japan	Scrap iron	6,285	5,876	4,240
Negada	25	00.25	27	10.20	27	20.39	27	22.05	German	Hamburg-AmericanLine	410.0	52.0	27.0	Hamburg, Germany	Valparaiso, Chile	General	5,652	6,478	4,530
Atlas [1]	25	9.45	27	10.30	27	21.10	27	22.05	American	Standard Transp. Co.	430.0	58.2	13.0	Beaumont, Texas.	Los Angeles, Calif.	Ballast		7,348	5,164
Baralt	25	21.20	27	11.50	27	22.15	27	23.45	Dutch	Royal Neth. S. S. Co.	200.0	33.0	12.2	Cristobal, C. Z.	Buenaventura, Col.	General	132	1,183	742
Malchace	27	8.30	27	11.45	27	22.22	27	23.45	American	Malsah Steamship Co.	333.8	48.0	21.0	New York, N. Y.	Portland, Oreg.	Sugar, boxes	4,608		
Brunswick [1] [3]	27	5.55	27	13.30	27	23.07	28	2.45	Panaman	Atlantic Refining Co.	471.0	63.0	19.7	Hamburg, Germany	Los Angeles, Calif.	Ballast		9,178	6,650
Dio	27	10.20	27	14.50	28	00.10	28	1.33	American	Redwood Line	381.0	52.0	22.0	New Orleans, La.	San Francisco, Cal.	General	4,043	5,708	4,131
Fjorden	27	11.45	27	14.55	28	00.19	28	1.33	Norway	S. Brommelind	275.7	40.2	19.0	Hamburg, Germany	Puntarenas, C. R.	Cement, pipes	2,245		
Ingrid	27	16.20	27	16.35	28	1.20	28	2.45	Norwegian	Arango & Salvador	279.0	40.0	17.10	Antwerp, Belgium	Buenaventura, Col.	Cement, general	2,550	2,217	1,493

[1] Tanker. [9] Yacht. [10] U. S. Navy transport. [11] Supply ship.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Somme [12]	20	8.10	21	00.26	21	10.00	21	17.08	American	U. S. Army	448.0	58.0	24.6	San Francisco, Cal.	Brooklyn, N. Y.	General	322		
Tyr [13]	21	4.45	21	5.44	21	12.45	21	12.45	Norwegian	Hierwald Hansen	357.0	51.3	23.6	Vancouver, B. C.	Garston, England.	Lumber, general	4,792	4,828	3,489
Urania [1] [13]	21	3.20	21	7.09	21	14.45	21	16.30	Danzig	Standard Shipping Co.	470.2	63.2	26.5	Talara, Peru	Hamburg, Germany	Gasoline	11,300	9,011	5,928
Orient City	21	6.00	21	7.29	21	16.15	21	18.35	British	Sir W. R. Smith & Sons	396.5	53.5	25.6	Vancouver, B. C.	Falmouth, England	Wheat	7,920	5,979	4,419
La Crescenta [1]	21	6.45	21	8.31	21	16.55	21	16.55	British	Harris & Dixon, Ltd.	400.0	53.0	27.7	San Francisco Cal.	Curacao, D. W. I.	Stove oil	8,303	6,128	4,062
Edda	21	8.15	21	9.55	21	18.35	21	19.35	Italian	Nav. Libera-Tricstina	418.9	53.9	20.0	Portland, Oreg.	Rotterdam, Holland	Apples	3,132	6,206	4,421
Sylvan Arrow [1]	21	13.00	21	13.38	21	22.05	21	22.05	American	Standard Transp. Co.	467.6	62.7	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,076	9,698	6,899
Iserlohn	21	16.55	21	17.46	22	9.45	23	23.40	German	Hamburg-AmericanLine	338.7	47.4	18.0	San Jose De Guate	Hamburg, Germany	General	2,394	4,395	2,731
Enem [14]	21		21		22	9.53			Nicaraguan	W. S. Boddem	49.5	12.0		Cape Mala, R. P.	Cristobal, C. Z.	Scrap	5	19	14
San Mateo	21	20.15	21	21.09	22	9.27			American	United Fruit Co.	315.0	44.2	21.7	San Francisco, Cal.	Port Limon, C. R.	([15])	996	3,496	2,141
SantaBarbara [13]	21	19.50	22	6.02	22	13.15	22	17.05	American	Grace Line	466.0	64.0	26.0	Talcahuano, Chile	New York, N. Y.	General	5,813	10,487	6,633
S. C. T. Dodd [1]	22	4.45	22	7.10	22	16.00	22	16.00	American	Standard Oil Co. of Cal.	425.0	57.2	28.0	Los Angeles, Calif.	Baltimore, Md.	Gasoline	9,387	7,481	4,975

[1] Tanker. [12] U. S. Army transport. [13] Motor ship. [14] Yawl. [15] Coffee, gasoline, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Cleveland [16]			22	7.20	22	16.15	23	6.05	American	U. S. Navy	292.0	44 0		Balboa, C. Z.	Cristobal, C. Z				
Vancolite [1 17]	22	9.00	22	11.00	22	19.25	22	20.40	British	Imperial Oil Co., Ltd	510.2	68 2	30 0	Talara, Peru	Montreal, Canada	Crude oil	16,000	11,573	7,096
Robin Adair	22	12.21	22	13.18	22	21.00	22	21 00	American	Seas Shipping Co	424 6	55 2	24 6	Vancouver, B. C.	Baltimore, Md.	Lumber	6,802	7,470	5,529
Asia [17]	22	13.30	22	14.12	22	22 50	22	22 50	Danish	East Asiatic Co	425.3	55 2	29.3	Vancouver, B. C.	Copenhagen, Den.	General	9,972	7,396	5,588
Pacific Hemlock	22	19.30	22	20.13	23	9 12	23	9.12	American	Dimon S. S. Corp.	409.7	54.2	25 1	Olympia, Wash.	Baltimore, Md.	Lumber	7,781	6,030	4,916
Nebraskan	23	4.30	23	6.25	23	14.05	23	14.05	American	Amer.-Hawaiian Line	471 1	59.1	26 8	Portland, Oreg.	Boston, Mass.	General	8,562	9,032	6,638
Gen. G. W. Getty [18]			23	6.44	23	14.15	24	7 30	American	U. S. Army	98 0	22.0		Balboa, C. Z.	Cristobal, C. Z				
Robert Luckenbach	23	8.35	23	9.11	23	16.10	23	16.10	American	Luckenbach Line	445 0	58.0	25 0	Portland, Oreg.	Boston, Mass.	Lumber, general.	7,908	8,695	6,375
Pacific Reliance [17]	23	9.50	23	10.43	23	18 00	23	18.00	British	Furness-Pacific Line	435 9	60.2	28.0	Vancouver, B. C.	Glasgow, Scotland	General	8,554	9,643	6,967
Zealandic [17]	23	7.15	23	14.48	23	21 45	23	21 45	British	Shaw, Savill & Albion.	482 6	64.2	26.0	Pt. Chalmers, N. Z.	London, England	Frozen, general.	6,032	11,817	8,367
Winton [17]	23	11.10	23	17.50	24	9.00	24	9.00	British	Avenue Ship Co.	375.2	53.5	26 0	Nehue, New Calid.	New York, N. Y.	([21])	7,550	6,295	4,663
Point Arena	23	20.40	23	21 35	24	10 40	24	10 40	American	Gulf-Pacific Line	324.0	46.2	23 0	San Francisco, Cal.	New Orleans, La.	([22])	4,039	3,984	2,612
Santa Cruz	23	20.40	23	22 30	24	10.45	24	14 25	American	Grace Line	384 0	50.2	23.0	Chanaral, Chile	New York, N. Y.	([23])	4,722	5,534	3,868
Myrtle	23	20.40	24	00.52	24	12 05	24	12 05	American	States S. S. Co	410 5	54.2	26 3	Portland, Oreg.	Philadelphia, Pa.	Lumber	7,261	6,753	4,895
Elder Branch	24	3.30	24	4.25	24	13 15	24	13 15	British	F. & W. Ritson	380 3	49 7	24 9	Coronel, Chile.	Liverpool, England	([24])	5,993	4,952	3,592
Sylvafield [1 17]	23	17.10	24	5.14	24	14 30	25	00 40	British	Hunting & Son.	395 0	56.5	26.4	Los Angeles, Calif.	Le Havre, France.	([25])	7,524	5,900	3,993
Frontenac [1]	22	8 20	24	6.35	24	17 03	24	17 03	Norway	Tankers Corp., N. Y.	440 9	58.4	17.5	Los Angeles, Calif.	Port Arthur, Texas	Ballast		7,768	5,460
Bienvenido	24	00 30	24	6 54	24	18 25	24	22 35	British	P. N. & J. N. Carranza.	210 3	32 1	12 0	Buenaventura, Col.	Trinidad, B. W. I.	Ballast		1,345	806
Orcoma	24	6 00	24	7.47	24	16.00	25	00 35	British	Pacific Steam Nav. Co.	511 6	62 0	27.6	Talcahuano, Chile	Liverpool, England	Copper, cereals.	5,969	12,417	8,305
Suporteo	24	6.00	24	8 45	24	18 45	24	18 45	American	Transmarine Lines.	324 0	46 2	24.6	Aberdeen, Wash.	Newark, N. J.	Lumber	4,100	3,984	2,612
Arcadia [19]	23	11 00	24	8 56	24	18 10	25	8.05	American	Margaret S. Hardwick	174.2	27 6	10.6	Sea	Cristobal, C. Z			591	263
Panquiaco [20]	22	15 00	24	9.38	24	19 45	24	19.45	Panaman.	Panama Government	125.0	23 6	14 0	Panama Bay, R. P.	Cristobal, C. Z				
Durazzo	24	9.25	24	10.12	24	20.30	29	10.15	German	Hamburg-AmericanLine	227.0	34.4	12 5	Guayaquil, Ecuad'r	Cristobal, C. Z			440	1,633	1,041
Modavia [17]	24	12.10	24	13.15	24	21 25	25	1 00	British	Donaldson Bros	385.0	53 7	26.3	Victoria, B. C.	Glasgow, Scotland	([27])	5,890	6,719	4,979
Vestalia	24	13.00	24	14.14	24	21.55	24	21.55	British	DuPont de Nemours	423.4	56 0	25 0	Iquique, Chile.	Savannah, Ga.	Nitrates	8,150	6,199	4,412
City of San Francisco [17]	23	18 46	24	21.05	25	9 10			Panaman.	Panama Mail S. S. Co.	296 8	45 9	17 0	San Francisco, Cal.	Cristobal, C. Z	([28])	1,258	3,848	2,606
Stersby [17]	24	16.35	24	21.19	25	9.15	25	9.15	Danish	W. L. Comyn & Co.	350 2	50 8	24 0	Victoria, B. C.	New York, N. Y.	Lumber	5,888	4,917	3,516
Invella	24	17.10	25	00.25	25	10.40	25	10.40	British	DuPont de Nemours	400 1	52 2	25.6	Iquique, Chile	Wilmington, N. C.	Nitrates	7,750	5,665	3,986
Istria	25	3.30	25	4.45	25	13.25	25	15 20	Italian	Nav. Libera-Triestina	400.0	54.1	24.6	Portland, Oreg	Belfast, Ireland	Lumber, grain.	7,780	5,514	3,963
Francis E. Powell [1]	24	16.25	25	5.21	25	14.15	25	14.15	American	Atlantic Refining Co	431.0	59.2	26.4	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline, benzine	9,504	7,680	5,101
Mary Ellen O'Neil [17]	24	23.20	25	6.21	25	15.45	25	15.45	American	The Texas Co.	509 7	70.3	31.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	16,372	12,514	8,427

[1] Tanker. [16] Cruiser. [17] Motor ship. [18] Tug. [19] Motor yacht. [20] Revenue cutter. [21] Chrome ore and copra. [22] Explosives and general.
[23] Copper, cocoa, and nitrates. [24] Nitrates, sugar, and copper. [25] Gasoline and kerosene. [26] Cocoa and ivory nuts. [27] Grain, fruit, and general. [28] Coffee, hides, and general.

Scheldestad	22	6.45	25	7.31	25	17.30	25	20.00	Belgian	Scheldstrom S. S. Corp.	380.0	50.0	23.6	Vancouver, B. C.	Portugal.	Wheat	6,270	5,281	3,773
Aachem	25	1.30	25	8.25	25	17.50	26	21.45	German	North German Lloyd	431.1	56.4	25.4	Talcahuano, Chile	Hamburg, Germany	General	7,982	7,196	4,956
Texas Maru	25	4.15	25	9.36	25	18.30	25	22.45	Japanese	Kokusai Kisen Kaisha	425.0	53.6	27.6	Manila, P. I.	Baltimore, Md	Sugar	9,059	6,899	5,139
Panaman	25	7.40	25	10.29	25	19.21	25	19.20	American	Amer.-Hawaiian Line	407.7	53.7	26.0	Los Angeles, Calif.	Charleston, S. C.	General	5,821	7,098	5,065
Loriga [17]	25	6.15	25	12.00	25	21.30	26	12.18	British	Pacific Steam Nav. Co.	406.5	54.2	26.6	Talcahuano, Chile	Hull, England	General	7,419	7,331	5,091
Baralt	25	11.00	25	12.04	25	21.20	27	11.50	Dutch	Royal Neth. S. S. Co.	202.9	33.1	12.0	Guayaquil, Ecuad'r	Cristobal, C. Z.	General	430	1,183	742
Herman Falk [17]	25	12.25	25	13.09	25	22.10	25	22.10	American	Oil Transport Co	431.0	59.2	25.5	San Francisco, Cal.	New York, N. Y.	Gasoline	11,381	7,862	5,049
Dochet	25	17.45	26	1.19	26	10.05	26	10.05	American	Redwood Line	386.8	52.2	24.0	San Francisco, Cal.	Mobile, Ala	Lumber, general.	5,853	5,705	4,167
San Salvador [1]	25	16.45	26	5.43	26	13.10	26	13.10	British	Anglo-Mexican Pet Co.	407.4	52.2	26.5	Los Angeles, Calif.	United Kingdom	Gasoline	7,369	6,157	4,137
Acajutla	26	2.30	26	6.54	26	14.30	29	10.10	British	Pacific Steam Nav. Co.	215.7	33.5	14.0	Champerico, Guat.	Cristobal, C. Z.	[30]	600	1,273	706
Caldas [17]	25	22.00	26	8.19	26	16.40			Colombian	National Navigation Co.	116.0	21.1	10.0	Buenaventura, Col.	Cristobal, C. Z.	General	255¾	211	124
Roahine	25	12.55	26	13.11	26	20.25	26	20.25	British	N. Z. Shipping Co	430.6	60.3	25.0	Wellington, N. Z.	London, England	Frozen, general.	5,176	11,443	8,417
Fort Armstrong	26	14.50	26	15.35	26	23.00	27	2.10	American	Charles Nelson & Co.	324.0	46.2	24.0	Seattle, Wash	Charleston, S. C.	General, lumber.	4,592	3,984	2,623
Kako Maru	26	21.00	27	00.10	27	9.25	27	13.40	Japanese	Nippon Yusen Kaisha	435.0	53.0	25.6	Manila, P. I.	New York, N. Y.	General	5,319	7,025	5,055
Canadian Seigneur	26	22.30	27	1.31	27	19.55	27	13.15	British	Can. Nat. Steamships	400.6	52.3	24.0	Vancouver, B. C.	Montreal, Canada	Lumber, general.	6,380	5,893	4,482
Bethore	27	4.15	27	6.23	27	16.25	27	16.25	American	Ore S. S. Corp	551.3	72.2	35.0	Cruz Grande, Chile	New York, N. Y.	Iron ore	20,768	15,476	4,354
Mallard			27	7.05	27	17.45			American	U. S. Navy	187.0	38.0	13.8	Balboa, C. Z.	Cristobal, C. Z.	[33]			
S-14 [29]			27	7.57	27	17.45			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-15 [29]			27	7.57	27	17.45			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-17 [29]			27	8.29	27	17.45			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-12 [29]			27	8.29	27	17.45			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
Margaret Johnson [17]	27	3.00	27	9.45	27	19.00	28	1.40	Swedish	Johnson Line	495.0	54.0	25.8	Seattle, Wash	Stockholm, Sweden	Grain, general	5,575	7,048	5,337
Novasli	27	10.45	27	11.25	27	20.05	27	20.05	Norwegian	Moore & McCormack	312.2	48.0	20.6	Taltal, Chile	Charleston, S. C.	Nitrates	5,040	3,929	2,798
St. Therese	27	19.00	27	11.50	27	21.00	29	23.25	Norwegian	United Fruit Co	293.1	44.2	16.0	Pt. Armuelles, R.P.	Colon, R. P.	Ballast		2,629	1,716
Manizales	27	11.06	27	11.57	27	20.30	29	14.45	German	Roland Line	216.0	32.0	11.4	Guayaquil, Ecuad'r	Cristobal, C. Z.	General	784	1,132	741
Ucayli	27	9.00	27	12.08	27	20.40			Peru	Peruvian Line	374.7	46.3	21.0	Callao, Peru	Cristobal, C. Z.	Peas, liquors	1,987	4,466	2,406

[1] Tanker. [29] Submarine. [30] Coffee, hides, and general. [33] Towing pontoons.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
April 21	Toloa	United Fruit Co	Port Limon, Costa Rica.
April 21	Oranian	Leyland S. S. Line	Liverpool via wayports.
April 21	Annetta I. [32]	A. Tagaropulos	Colon, R. P.
April 22	Suriname	United Fruit Co	Pto. Colombia.
April 22	Calamares	United Fruit Co	New York via Habana.
April 22	No. 9664 [31]	Pan-American Airways	Tela via wayports.
April 22	Anachucuna [32]	United Fruit Co	Colon, R. P.
April 24	Venezuela	Royal Neth. S. S. Co	Amsterdam via wayports.
April 24	Ancon	Panama R. R. S. S. Line	New York via Haiti.
April 24	Metapan	United Fruit Co	New York via Kingston.
April 24	Cundinamarca No. 33 [31]	Scadta Airplane Co	Barranquilla via wayports.
April 24	Gundersen	United Fruit Co	New Orleans, La.

* DEPARTURES.

Date.	Vessel.	Line.	For—
April 21	Annetta I. [32]	A. Tagaropulos	Colon, R. P.
April 21	Wanks	Stand. Fruit S. S. Co	San Blas, R. P.
April 21	Toloa	United Fruit Co	New York via Habana.
April 22	Anachucuna [32]	United Fruit Co	Colon, R. P.
April 22	Cartago	United Fruit Co	New Orleans via wayports.
April 22	Suriname	United Fruit Co	Port Limon via Bocas.
April 22	Oranian	Leyland S. S. Line	Pto. Colombia.
April 23	No. 9685 [31]	Pan-American Airways	Tela via wayports.
April 24	Calamares	United Fruit Co	Port Limon, Costa Rica.
April 24	Venezuela	Royal Neth. S. S. Co	Port Limon, Costa Rica.
April 24	Inapaquina [32]	United Fruit Co	Colon, R. P.
April 25	Cundinamarca No. 33 [31]	Scadta Airplane Co	Barranquilla and Cartagena.

[31] Motor boat. [32] Air-mail carrier. [33] Schooner. * Other than ships passing through the Canal.

(Continued on page 566, column 2.)

Vessels Change Hands.

THE PANAMA CANAL RECORD is in receipt of advice that the Arrow Line, operators in the United States intercoastal trade, have acquired three vessels which they are to place in the coast-to-coast service. The vessels are the steamers *Marian Otis Chandler* (ex *West Haven*), *Helen Whittier* (ex *West Lianga*), and the *General M. H. Sherman* (ex *Mursa*), all former Shipping Board vessels, and are of 5,781, 5,673 and 6,085 gross tons, respectively. It is reported that these vessels are to replace the *Peter Kerr*, *Eastern Knight*, and the *Jefferson Myers*, which will be placed in the service of the Quaker Line, also operating in the United States intercoastal freight service.

Dredging Division Begins Filling at Albrook Field.

The actual placing of the hydraulic fill for Albrook Field at Balboa was started last week by the Dredging Division of The Panama Canal, the new Diesel-electric dredge *Las Cruces* being used for the work. The plans call for approximately 1,200,000 cubic yards of fill to be placed within the confines of the dikes which were recently constructed to retain the material within the limits of the field.

Making the fill is the first major step in a project of enlarging the the field and erecting modern hangars, shops, barracks, and quarters.

New Vessels for Sudden and Christenson.

The Shipping Board has announced the sale of the steamers *West Bridge* and *West Wauneke* to Sudden & Christenson of San Francisco, operators in the United States intercoastal trade. The vessels are steel cargo steamers of 8,594 and 8,635 deadweight tons, respectively, equipped with oil-burning boilers, and designed to steam at 10¼ knots. After reconditioning, the ships are to be used to supplement their new owner's intercoastal fleet.

Correction.

In the issue of THE PANAMA CANAL RECORD of April 17, 1929, in an item under the heading of "North Pacific Coast Line to include Jamaica," it was erroneously stated that the "B" route vessels of this line call at Caracas on their westbound voyages. This should have been Curacao instead of Caracas.

Supplement No. 15.—Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *April 25, 1929.*

Regulation 3.1, contained in Supplement No. 9 of May 7, 1928, to the "Rules and Regulations Governing Navigation of the Panama Canal and Adjacent Waters," is hereby amended to read as follows:

Regulation 3.1. *Load and Trim:* All vessels must be properly trimmed before entering. If a vessel arrives at the Canal not properly trimmed, and it is impossible to remedy this condition the vessel will be taken through, but the Canal will not be responsible for the safe transit of such vessel, or if vessel is overloaded to such an extent as to affect its maneuvering qualities. In the case of vessels arriving with a list of over three degrees, and less than ten degrees, the Master of such vessel will be required to sign a certificate stating that The Panama Canal will be relieved of all responsibility for any damage that may be done to ship or Panama Canal structures, due to such condition. This release will be signed in the presence of the Pilot and delivered to him for further delivery to the Port Captain. A vessel with a list of ten degrees or over will not, under any circumstances, be permitted to transit. Also, vessels should be on an even keel or with a slight drag. The cases of vessels down by the head, where such trim can not be corrected, must be referred to the Port Captain concerned with the Pilot's recommendation and, if necessary, a release similiar to the one mentioned above must be obtained signed by the Master before the ship is taken through.

H. BURGESS,
Governor.

Notices to Mariners.

Ranchos Point, Tortuga Island.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *April 30, 1929.*

No. 531.

The following is quoted from Notice to Mariners, Washington, D. C., April 13, 1929:

Venezuela, north coast, Tortuga Island, Ranchos Point, Light established. Information has been received through the Department of State that an unwatched flashing white light every 9 seconds, flash 3 seconds, eclipse 6 seconds, has been established on Ranchos Point, northern side of Tortuga Islands.

The light is exhibited 59 feet (18 meters) above high water and is visible 13 miles.

Approx. position 10° 58′ 20″ N., 65° 18′ 10″ W.

H. BURGESS,
Governor.

Navassa Island Light.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *April 30, 1929.*

No. 532.

The following is quoted from Notice to Mariners, Washington, D. C., April 13, 1929:

West Indies, Caribbean Sea, Navassa Island Light, Characteristic to be changed. About May 20, 1929, the characteristic of Navassa Island Light will be changed to show flashing white every 15 seconds, flash 2.5 seconds duration, with short intermediate flashes every 2 seconds.

Beginning about May 1, while the change is being effected, 2 white lights of less intensity will be exhibited, 1 from the north side and 1 from the south side of the parapet at the base of the lantern, in lieu of the present light. These will show flashing white every 5 seconds, flash 0.5 second, eclipse 4.5 seconds. Each light will flash independently.

Approx. position 18° 24′ 10″ N., 75° 00′ 50″ W.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending April 27, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Mantaro	Peruvian S. S. Line		April 14		110½
Cristobal	Panama R. R. S. S. Line		April 14		2,747
Wanks	Standard Fruit S. S. Co		April 14		78
Cavalla	North German Lloyd	April 14	April 14	129	35
Una	United Fruit Co	April 14	April 14	15	43
Alaska	French Line	April 14	April 15	325	313
Manila Maru	Osaka Shosen Kaisha	April 14	April 15	55	(2)
Macabi	United Fruit Co	April 14	April 15	823	8
Guatemala	Panama Mail S. S. Co	April 14	April 15	654	148
Kellerwald	Hamburg-American Line	April 14	April 17	924	466
Cauca	National Navigation Co	April 14		289	
Uribe	Estrada G. Hermanos		April 15		609
Lisa	Hamburg-American Line		April 15		276
Heredia	United Fruit Co		April 15		107
Aconcagua	Chilean Line	April 15	April 15	3	202
Tolua	United Fruit Co	April 15	April 17	289	222
Antillian	Leyland S. S. Line	April 15	April 17	77	(2)
Pelerin de la Touche	French Line	April 15	April 18	296	704
Stella	Panama Mail S. S. Co	April 15	April 20	950	1,250
Leila	Gulf-Caribbean S. S. Line	April 16	April 16	261	(2)
Gaasterdijk	Holland-American Line	April 16	April 17	(1)	435
Limon	United Fruit Co	April 16	April 20	913	694
Nitro	Societa Anonima Commerciale	April 17	April 17	107	(2)
William M.	R. Feuillebois	April 17	April 17	(1)	34½
Honduras	United Fruit Co	April 17	April 18	556	(2)
George Washington	Norway-Pacific Line	April 17	April 17	(1)	156
Orinoco	Hamburg-American Line	April 17	April 18	153	20
Santa Marta	United Fruit Co	April 17	April 18	681	458
Suriname	United Fruit Co	April 17	April 18	797	(2)
Baarn	Royal Neth. S. S. Co	April 17	April 19	630	365
Colombia	Panama Mail S. S. Co	April 18	April 19	685	183
Hessen	Hamburg-American Line	April 18	April 19	(1)	336
Cali	North German Lloyd	April 18	April 20	898	411
Ludwigshafen	North German Lloyd	April 18	April 19	(1)	87
Jamaica	Pacific Steam Nav. Co		April 19		803
Dorelian	Leyland S. S. Line	April 18	April 19	(1)	240
Lochkatrine	Royal Mail S. S. Line	April 18	April 19	(1)	199
Amapala	Standard Fruit S. S. Co	April 19	April 20	446	817
Cartago	United Fruit Co	April 20		456	

[1] No cargo discharged.

[2] No cargo laded.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Coppename	United Fruit Co	April 20	April 20	35	91
Wanks	Standard Fruit S. S. Co	April 20		170	
Orinoco	Hamburg-American Line	April 20	April 20	18	1,512
Linda S	R. Feuillebois	April 20	April 20	(1)	50
Macabi	United Fruit Co	April 20	April 20	120	1,181
Britte	Colombian Maritime Co	April 20		302	
Toloa	United Fruit Co	April 21	April 21	29	¾
Moerdijk	Holland-American Line	April 21	April 22	32	244
Oranian	Leyland S. S. Line	April 21	April 22	729	18
Suriname	United Fruit Co	April 22	April 22	2	112
Santa Barbara	Grace Line	April 22	April 22	31	4
Cartago	United Fruit Co		April 22		85
Wanks	Stand. Fruit S. S. Co		April 22		5
Iserlohn	Hamburg-American Line	April 22	April 23	546	555
Calamares	United Fruit Co	April 22	April 24	1,283	413
San Mateo	United Fruit Co	April 22	April 27	1,444	3
Peru	Danish East Asiatic Co	April 23	April 24	130	(2)
Hudson	French Line	April 23	April 24	201	247
Venezuela	Royal Neth. S. S. Line	April 24	April 24	110	22
Santa Cruz	Grace Line	April 24	April 24	6½	42
Gunderson	United Fruit Co	April 24	April 25	555	57
Pacific President	Furness, Withy & Co	April 24	April 25	28	372
Orcoma	Pacific Steam Nav. Co	April 24	April 25	2	(2)
Durazzo	Hamburg-American Line	April 24		440	
Ancon	Panama R. R. S. S. Line	April 24		6,416	
Arana	Pacific Steam Nav. Co	April 24	April 25	215	150
Martha	H. C. Stevenson		April 25		717
Metapan	United Fruit Co	April 24	April 25	564	379
Loriga	Pacific Steam Nav. Co	April 25	April 26	19	188
Essequibo	Pacific Steam Nav. Co	April 25	April 26	90	(2)
Aachen	North German Lloyd	April 25	April 26	46	275
City of San Francisco	Panama Mail S. S. Co	April 25		1,258	
Axel Johnson	Johnson Line	April 25	April 26	297	124
Baralt	Royal Neth. S. S. Line	April 25	April 27	440	132
Atlas	Standard Transp. Co	April 25	April 27	10,658	(2)
Negada	Hamburg-American Line	April 25	April 27	156	741
Parismina	United Fruit Co	April 26		668	
Suriname	United Fruit Co	April 26	April 26	(1)	0
William M	R. Feuillebois	April 26	April 26	(1)	26
Caldas	National Navigation Co	April 26		256	
Cauca	National Navigation Co		April 26		79
Colombo	Italian Line	April 26	April 27	460	
Acajutla	Pacific Steam Nav. Co	April 26		600	
Atlantida	Stand. Fruit S. S. Co	April 26	April 27	310	514
Venezuela	Royal Neth. S. S. Line	April 26	April 27	(1)	786
Nosa Chief	N. O. & S. A. S. S. Co	April 27		141	
Margaret Johnson	Johnson Line	April 27	April 27	(1)	310
Ucayli	Peruvian Line	April 27		1,987	
Kako Maru	Nippon Yusen Kaisha	April 27	April 27	166	(2)
Manzanles	North German Lloyd	April 27		784½	
Wanks	Stand. Fruit S. S. Co	April 27		160	
Cavina	Elders & Fyffes, Ltd	April 27	April 27	1½	(2)

[1] No cargo discharged. [2] No. cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Three Weeks Ending April 27, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
California	Panama-Pacific Line	April 7	April 7		187
Cambrai	U. S. Government	April 8	April 9	98	23
Santa Cecelia	Grace Line	April 11	April 11		7
Caldas	National Navigation Co	April 12	April 12		34
Guatemala	Panama Mail S. S. Co	April 15	April 15	25	80
Colombia	Panama Mail S. S. Co	April 17	April 18	120	
Santa Maria	Grace Line	April 18	April 18	1	31
Virginia	Panama-Pacific Line	April 19	April 19	1	72
Somme	U. S. Government	April 20	April 21	1,193	115
San Mateo	United Fruit Co	April 21	April 21	1	
Frontenac	Halle & Peterson	April 22	April 24	11,072	
City of San Francisco	Panama Mail S. S. Co	April 23	April 24	1	
Peru	East Asiatic Co	April 24	April 25	301	
Caldas	National Navigation Co	April 25	April 26	5	
S. A. Perkins	Jas. Griffiths & Son	April 25		5,225	
Axel Johnson	Johnson Co	April 26	April 26	18	
Chateau Thierry	U. S. Government	April 26		114	
Acajutla	Pacific Steam Navigation Co	April 26	April 26	5	
Cauca	National Navigation Co	April 26	April 26		12

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2	$8.00	$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds	11.00	14.00

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessel furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 561.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

Date	Vessel.	Line.	From—
April 24	Inapaquina [35]	United Fruit Co.	Colon, R. P.
April 24	Ametta I. [35]	A Tagaropulos	Colon, R. P.
April 26	William M. [36]	G. I. Bryan	Colon, R. P.
April 26	Atlantida	Stand. Fruit S. S. Co.	New Orleans via wayports
April 26	Parismina	United Fruit Co.	New Orleans via Habana.
April 26	Suriname	United Fruit Co.	Bocas, R. P.
April 26	Venezuela	Royal Neth. S. S. Co.	Port Limon, Costa Rica.
April 26	Wanks	Stand. Fruit S. S. Co.	San Blas, R. P.
April 27	Cavina	Elders & Fyffes Line	Avonmouth via wayports
April 27	No. 9664 [37]	Pan-American Airways.	Tela via wayports.

[35] Motor boat. [36] Schooner. [37] Air-mail carrier.

PORT OF BALBOA.

Date	Vessel.	Line.	From—
April 23	San Luis [38]	Chiriqui Land Co.	Puerto Armuelles, R. P.
April 24	Sambu [38]	Hans Elliot	El Real, R. P.
April 24	Dos Hermanos [38]	A. Valdez	Bayano River, R. P.
April 24	Dixie [38]	Pacific Fruit Co.	Bayano River, R. P.
April 24	S. A. Perkins	James Griffith & Sons	Seattle, Wash.

* DEPARTURES.

Date.	Vessel.	Line.	For—
April 23	No. 9664 [37]	Pan-American Airways.	Tela via wayports.
April 23	Metapan	United Fruit Co.	New York via wayports.
April 25	Gundersen	United Fruit Co.	Port Limon via Bocas.
April 24	Suriname	United Fruit Co.	New Orleans, La.
April 23	William M. [36]	G. I. Bryan	Bluefields, Nicaragua.
April 27	Atlantid	Stand. Fruit S. S. Co.	New Orleans via wayports.
April 27	No. 9665 [37]	Pan-American Airways.	Tela via wayports.
April 27	Cavina	Elders & Fyffes Line.	Avonmouth via Kingston.
April 27	Venezuela	Royal Neth. S. S. Co.	Amsterdam via wayports.

April 24	San Luis [38]	Chiriqui Land Co.	Puerto Armuelles, R. P.
April 24	Sambu [38]	Hans Elliot	Panama Bay, R. P.
April 24	A. Valdez	A. Valdez	Panama Bay, R. P.
April 24	Dixie [38]	Pacific Fruit Co.	Panama Bay, R. P.

[38] Motor schooner.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., May 8, 1929. No. 40.

Tanker Traffic Through the Panama Canal in April, 1929.

During the month of April, 1929, 82 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 444,357, on which tolls of $391,053.29 were collected. Cargo amounted to 420,659 tons. In point of net tonnage, tanker traffic showed an increase of 12 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage decreased 4.7 per cent under the cargo tonnage of April, 1928.

Tank ships comprised 15.2 per cent of the total commercial transits through the Canal during the month; made up 17.8 per cent of the total Panama Canal net tonnage; were the source of 17.1 per cent of the tolls collected; and carried 15.4 per cent of the toal cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of April, 1929, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals, for the two preceding months and for April, 1928:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo
Atlantic to Pacific.				
British	10	58,685	$43,821.05	8,530
Danish	1	4,097	2,949.84	.....
Danzig	1	5,927	4,267.44	.....
Dutch	1	5,065	3,646.80	.....
French	1	3,135	3,390.00	6,000
Norwegian	1	5,268	3,792.96	.....
Panaman	1	6,650	4,788.00	.....
United States	22	122,183	89,494.53	8,346
Yugoslav	1	4,189	3,016.08	.....
Totals, April, 1929	39	215,199	159,166.70	22,876
Totals, March, 1929	46	243,023	182,092.48	39,581
Totals, February, 1929	46	246,217	183,264.62	36,345
Totals, April, 1928	32	169,331	126,159.64	17,510
Pacific to Atlantic.				
British	12	55,243	55,825.64	92,036
Danzig	3	18,329	19,542.50	34,019
Norwegian	5	26,086	25,924.95	38,700
United States	23	129,500	130,593.50	[1]233,028
Totals, April, 1929	43	229,158	231,886.59	397,783
Totals, March, 1929	50	278,540	280,901.74	492,078
Totals, February, 1929	36	202,210	205,146.05	358,704
Totals, April, 1928	41	226,692	232,087.50	423,772

[1] Includes 6,495 tons coconut oil.

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months, and for April, 1928:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons. of cargo.
To Los Angeles.				
April, 1929	22	121,872	$87,747.84	
March, 1929	33	181,815	130,979.85	
February, 1929	31	170,099	124,280.17	8,397
April, 1928	24	132,100	96,474.73	[1]2,896
From Los Angeles.				
April, 1929	27	149,491	150,532.45	258,776
March, 1929	35	192,325	193,401.10	344,736
February, 1929	26	143,336	143,518.55	257,589
April, 1928	29	155,911	158,758.75	295,382

[1] Cargo discharged at Balboa, Canal Zone.

Isthmian Airways, Inc., Inaugurates Service.

The trans-Isthmian service of the Isthmian Airways, Inc., was inaugurated on May 5, 1929, when the company's eight-place Hamilton all-metal seaplane left its hangar at Folk's River, Cristobal, for Balboa. The present schedule calls for 3 round trips daily, leaving Cristobal at 7.00 a. m., 10.30 a. m., and 4.00 p. m., and from their hangar at pier 18, Balboa, at 8.00 a. m., 1.30 p. m., and 5.00 p. m., which schedule is to be maintained until it is ascertained what hours can best please and serve the public. Fares in this service are $10 for a one-way trip and $15 for a round trip, children under 3 paying half fare. Each passenger is permitted to carry free 30 pounds of baggage, everything in excess of which is charged for at the rate of 15 cents per pound.

The trans-Isthmian service of this company is said to be only the first major step in the development of plans for a network of lines connecting Panama and Colon with the interior towns of Panama. It is expected that other planes of the same type will shortly be added to the service.

Traffic by Nationality for April, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of April, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for April, 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	6,211	4,522	7,130	4,013	$4,471.92	
British	[1]68	341,816	260,517	428,313	265,986	302,771.07	232,581
Colombian	5	5,785	4,491	9,086	5,044	5,594.95	3,465
Danish	3	12,724	10,508	15,818	10,560	11,891.09	11,420
Danzig	1	5,927	5,207	8,744	5,026	4,267.44	
Dutch	7	33,156	22,421	37,160	22,365	25,998.05	16,947
French	5	21,824	16,656	27,554	16,544	20,820.00	19,577
German	14	49,669	35,004	58,423	35,321	43,755.00	46,786
Italian	3	17,654	14,375	23,963	13,653	17,968.75	3,978
Japanese	9	46,319	39,574	58,795	38,890	46,930.67	53,095
Mexican	[2]1					613.50	
Norwegian	16	55,647	39,121	64,001	38,520	45,357.31	59,217
Panaman	3	11,567	9,679	15,353	9,734	8,328.24	
Peruvian	1	2,959	1,515	4,617	2,427	1,893.75	110
Swedish	5	18,305	11,627	19,108	13,384	14,533.75	14,297
United States	115	553,353	426,604	692,555	424,547	485,689.33	395,877
Yugoslav	2	7,594	5,491	8,942	5,484	5,806.08	5,100
Totals, April, 1929	259	1,190,510	907,312	1,479,562	911,498	1,046,690.90	862,450
Totals, April, 1928	271	1,194,004	912,709	1,500,455	916,718	1,031,935.91	742,388
Totals, April, 1927	226	1,109,275	864,865	1,417,042	862,833	960,971.53	697,329

[1] Includes cruiser of 5,220 tons displacement. [2] Cruiser of 1,227 tons displacement.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	3,773	3,104	4,875	3,701	$3,880.00	6,270
British	76	392,028	291,536	491,676	301,224	361,450.64	502,840
Chilean	2	7,768	6,066	10,874	6,233	7,582.50	9,666
Colombian	6	2,887	2,508	4,210	2,570	2,569.57	1,200
Danish	9	36,531	27,502	43,224	27,751	34,377.50	62,429
Danzig	3	18,329	15,634	26,632	15,069	19,542.50	34,019
Dutch	7	35,020	22,695	39,094	22,995	28,368.75	47,743
French	5	23,514	19,229	30,715	19,230	24,036.25	31,448
German	14	39,447	28,881	47,679	28,586	36,054.40	53,290
Greek	3	11,930	8,416	13,847	8,533	10,520.00	21,201
Italian	5	29,817	22,473	37,376	23,047	28,091.25	30,375
Japanese	7	32,861	29,738	42,808	29,056	36,677.70	50,040
Norwegian	19	72,539	55,849	92,720	55,768	67,452.10	112,536
Panaman	2	7,503	5,398	8,847	5,451	6,747.50	10,133
Peruvian	2	5,364	2,504	7,922	3,941	3,130.00	3,989
Spanish	[1]					1,691.50	
Swedish	7	27,529	20,194	51,591	24,032	25,242.50	67,748
United States	110	543,159	424,611	684,400	422,778	529,535.46	797,991
Yugoslav	2	7,667	5,957	9,313	5,915	7,446.25	14,300
Totals, April, 1929	281	1,297,666	992,295	1,647,803	1,005,880	1,234,396.37	1,857,218
Totals, April, 1928	260	1,190,487	926,312	1,511,839	929,258	1,155,671.91	1,731,496
Totals, April, 1927	238	1,115,225	885,495	1,435,496	885,153	1,104,235.39	1,732,478

[1] Government training ship of 3,383 tons displacement.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	2	9,984	7,626	12,005	7,714	$8,351.92	6,270
British	144	[1]733,844	552,053	919,989	567,210	664,221.71	735,421
Chilean	2	7,768	6,066	10,874	6,233	7,582.50	9,666
Colombian	11	8,672	6,999	13,296	7,614	8,164.52	4,665
Danish	12	49,255	38,010	59,042	38,311	46,268.59	73,849
Danzig	4	24,256	20,841	35,376	20,095	23,809.94	34,019
Dutch	14	68,176	45,116	76,254	45,360	54,366.80	64,690
French	10	45,338	35,885	58,269	35,774	44,856.25	51,025
German	28	89,116	63,885	106,102	63,907	79,809.40	100,076
Greek	3	11,930	8,416	13,847	8,533	10,520.00	21,201
Italian	8	47,471	36,848	61,339	36,700	46,060.00	34,353
Japanese	16	79,180	69,312	101,603	67,946	83,608.37	103,135
Mexican	[2]1					613.50	
Norwegian	35	128,186	94,970	156,721	92,488	112,809.41	171,753
Panaman	5	19,070	15,077	24,200	15,185	15,075.74	10,133
Peruvian	3	8,323	4,019	12,539	6,368	5,023.75	4,099
Spanish	[3]1					1,691.50	
Swedish	12	45,834	31,821	70,699	37,416	39,776.25	82,045
United States	225	1,096,512	851,215	1,376,955	847,325	1,015,224.79	1,193,868
Yugoslav	4	15,261	11,448	18,255	11,399	13,252.33	19,400
Totals, April, 1929	540	2,488,176	1,899,607	3,127,365	1,917,378	2,281,087.27	2,719,668
Totals, April, 1928	531	2,384,491	1,839,021	3,012,294	1,845,976	2,187,607.82	2,473,884
Totals, April, 1927	464	2,224,500	1,750,360	2,852,638	1,747,986	2,065,206.92	2,429,807

[1] Includes cruiser of 5,220 tons displacement. [2] Cruiser of 1,227 tons displacement.
[3] Training ship of 3,383 tons displacement.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending May 4, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Laded.
				Tons.	*Tons.*
Santa Inez	Grace Line	April 27	April 27		8
Boskoop	Royal Neth. S. S. Co	April 29	April 30	102	
Bokuyo Maru	Nippon Yusen Kaisha	April 29	April 29	12	
El Salvador	Panama Mail S. S. Co	May 1	May 2	59	18
Ecuador	Panama Mail S. S. Co	May 1	May 1	246	16
La Paz	Pacific Steam Nav. Co	May 2	May 3		
Anyo Maru	Nippon Yusen Kaisha	May 2	May 2	118	
Santa Elisa	Grace Line	May 2	May 2	1	
Bohemian Club	Atlantic Refining Co	May 2	May 3	1,277	

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 4, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Langley [2]	27	6.20	28	6.00	28	14 16	29	19.16	American	U. S. Navy	520.0	65.0	25.10	Pensacola, Fla	San Deigo, Calif	Aeroplanes	99		
Remuera	28	6.10	28	7.15	28	15.20	28	22.55	British	N. Z. Shipping Co	485.0	62.3	27.0	London, England	Wellington, N. Z.	General	6,006	11,911	8,945
Nosa Chief	27	14.45	28	7.40	28	16.15	28	17.24	American	N. O. & S. A. S. S. Co.	300.0	45.0	19.10	New Orleans, La	Talcahuano, Chile	General	1,946	3,256	2,010
Kansan	28	2.55	28	8.45	28	16.14	28	17.24	American	Amer.-Hawaiian Line	404.6	54.0	21.0	New York, N. Y.	Portland, Oreg.	General	3,575	6,779	4,927
Colombo [3]	26	21.25	28	12.45	28	20.27	28	21.32	Italian	Italian Line	518.0	63.8	26.8	Genoa, Italy	Valparaiso, Chile	General	1,753		
Alaska	28	12.53	28	13.20	28	21.23	28	23.33	Norway	Scand.-So. Pacific Co.	405 0	54.0	24.7	Antwerp, Belgium	Buenaventura, Col.	General	7,354	6,565	4,799
Mojave [1]	28	13.05	28	13.35	28	23.05	29	00.18	American	General Petroleum Co.	435.0	56 2	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,434	5,098
Baron Maclay	28	13.25	28	16.35	29	00.45	29	2.25	British	H. Hogarth & Sons	430.4	56.3	26.7	Galveston, Tex.	Auckland, N. Z.	Sulphur	8,270	7,023	4,926
Calliope [1 3]	28	19.45	28	20.00	29	3.05	29	11.50	Danzig	Baltic-Amer. Pet. Co.	470.2	63.2	21.0	Rotterdam, Holland	Talara, Peru	Ballast		9,001	5,927
Imperial Prince	28	21.45	29	6.25	29	13.25	29	14.40	British	Prince Line, Ltd.	450.5	58.0	25.0	New York, N. Y.	Yokohama, Japan	General	6,198	8,594	6,091
Parthenia	28	10.25	29	7.40	29	14 38	29	15.45	British	Donaldson Bros., Ltd.	399.5	52.0	19.5	Glasgow-England	Vancouver, B. C.	General, bananas	1,215	5,831	4,341
Willpolo	29	4.30	29	8.40	29	18.32	29	19.34	American	William S. S. Line	386 8	52 2	23 2	Baltimore, Md.	Seattle, Wash.	General, coal	7,266	5,680	4,080
Durazzo	24	20.20	29	10.15	29	18.37	29	19 45	German	Hamburg-American Line	227 5	34.0	15.8	Cristobal, C. Z.	Guayaquil, Ecuad'r	General	954	1,633	1,041
Acajutla	26	14.30	29	10.10	29	19 45	29	21.05	British	Pacific Steam Nav. Co.	216.7	33.6	17 0	Cristobal, C. Z.	Champerico, Guat.	General	1,131	1,273	706
Port Auckland	29	5 30	29	11 26	29	19.52	29	21 05	British	Com'lth & Dom. Line	481 0	62 0	29.9	Antwerp, Belgium	Dunedin, N. Z.	General	6,915	10,862	8,192
Orduna	28	21.00	29	12.35	29	21.03	29	22.00	British	Pacific Steam Nav. Co.	550 0	67.0	30.8	Liverpool, England	Valparaiso, Chile	General	5,917	17,146	12,015
Izrada	29	2.00	29	13.45	29	21.54	29	23.15	Yugoslav	Yugoslav Lloyd	360.0	50.0	21 4	Split, Serb-Cr.-Slov	Chile	Cement	5,100	4,493	3,405
Le Loing [1]	29	8.15	29	14.30	29	22 54	5–1	12.45	French	French Government	403.6	50 6	23 0	Toulon, France	Callao, Peru	Fuel oil	6,000	5,379	3,135
Manizales	27	20.30	29	14.45	29	23.02	30	00.32	German	North German Lloyd	210.0	33.0	13.0	Cristobal, C. Z.	Guayaquil, Ecuad'r	General	319	1,132	741
Kent	29	17.00	29	17.15	29	00.50	30	4.15	British	N. Z. Shipping Co	460.6	62 8	28.0	Liverpool, England	Auckland, N. Z.	General	9,595	10,609	8,135
Canadian Leader	29	14.50	29	18.45	30	2.35	30	4.00	British	Can. Nat. Steamships	400.0	52.0	21.5	Halifax, N. S.	Adelaide, Australia	General	3,400	5,891	4,114
Virgilia	29	18.55	29	20.50	30	4.34	30	5.55	British	Gow Harrison & Co.	410.3	54.5	17.0	North Shields, Eng.	Los Angeles, Calif.	Ballast			
Grandon	29	7.00	30	6.05	30	15.43	30	17.10	German	North German Lloyd	435.0	57.0	23.5	Hamburg, Germany	Valparaiso, Chile	General	6,058		
Queen Maud	29	18.10	30	7.30	30	17 05	30	18.30	British	Thos. Dunlop & Sons	400.0	52.0	19.0	New York, N. Y.	Talcahuano, Chile	General	1,670	5,748	3,955
Castor [1 3]	29	21.45	30	9.05	30	17.53	30	21.36	Swedish	Anglo-Saxon Pet. Co.	482.0	62.0	20.0	Hull, England	San Francisco, Cal.	Ballast		8,960	6,295
Robin Goodfellow	30	4.45	30	9.50	30	18.55	30	20.25	American	Isthmian S. S. Lines	424.8	53.0	27.0	Baltimore, Md.	Tacoma, Wash.	General, steel	8,994	7,473	5,536
K. R. Kingsbury [1]	30	5.40	30	11.20	30	19.47	30	21.06	American	Standard Oil Co	440.0	58.0	19.0	New York, N. Y.	San Francisco, Cal.	Ballast		9,033	5,938
Lake El Pueblo	30	13.15	30	18.05	5–1	3.01			American	Johann G. Ohsol	253.4	43.7	19.0	Norfolk, Va.	Vladivostok, Russia	General	500		
Oregonian	30	18.25	30	18.55	1	2.13	5–1	3 25	American	Amer.-Hawaiian Line	404.6	53.9	22.0	Boston, Mass.	Seattle, Wash.	General	3,782	6,754	4,800
Mallard [4]			30	7.30	30	15.48			American	U. S. Navy	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.				
Tourville [5]	5–1	6.10	5–1	6.25	5–1	14.24			French	French Government	626.0	63.0	22.0	Guadeloupe, F.W.I.	Callao, Peru				
Point San Pablo	1	3.45	1	7.35	1	17.27	1	18 34	American	Gulf-Pacific Line	324.0	46.0	21.0	New Orleans, La.	San Diego, Calif.	General	3,000		
Kendal Castle	1	5.50	1	8.40	1	17 31			British	Barber S. S. Line	418.5	55 6	23 0	New York, N. Y.	Manila, P. I.	Oil, general	5,377	6,773	5,001

[1] Tanker. [2] Aircraft carrier. [3] Motor ship. [4] Mine sweeper. [5] Cruiser.

Dorothy Luckenbach	1	7.35	1	9.00	1	19.26	1	20.35	American	Luckenbach Line	448.9	60.2	23.6	Boston, Mass	Seattle, Wash	General	6,600	9,294	6,861
Gen. Royal T. Frank [6]	1	7.20	1	9.15	1	19.14			American	U. S. Army	165.0	32.0	12.6	New York, N. Y.	Honolulu, T. H.				
Nordhval [3]	1	10.00	1	11.10	1	20.36	1	21.55	Danish	P. Brown & Co.	380.0	53.9	14.6	Hamburg,Germany	San Diego, Calif.	Ballast			
Sutransco	1	11.15	1	11.35	1	20.43	1	21.55	American	Transmarine Lines	324.0	46.2	23.8	New York, N. Y.	Seattle, Wash	General	5,028		
Pear Branch	1	13.25	1	13.55	1	21.53	2	1.19	British	F. & W. Ritson	398.6	53.8	21.0	North Shields, Eng.	Corral, Chile	General	3,091	5,760	3,866
El Salvador	4–30	00.15	1	14.35	1	22.45	2	4.27	American	Panama Mail S. S. Co.	360.2	51.6	24.0	New York, N. Y.	San Francisco, Cal.	Coffee, general	2,778	5,710	4,023
Ashburton [3]	5–1	16.55	1	17.15	2	00.55	2	21.37	British	Amer.-Australian Line	400.0	52.0	21.0	New York, N. Y.	Adelaide, Australia	General	4,426	5,997	4,307
BohemianClub [4]	1	6.05	2	6.00	2	13.31	3	9.47	American	Atlantic Refining Co.	425.0	57.2	21.6	Philadelphia, Pa.	Los Angeles, Calif.	([8])	1,277	7,204	4,739
Orinoco	2	1.20	2	7.05	2	20.43	2	21.55	American	Quaker Line	376.0	52.3	19.0	Wilmington, Del.	Tacoma, Wash.	General	4,133	5,455	3,902
Santa Elisa	1	23.58	2	9.07	2	21.00	2	22.10	American	Grace Line	360.3	51.7	23.6	New York, N. Y.	Talcahuano, Chile	General	2,040	5,957	4,325
Brandanger [3]	2	7.20	2	10.15	2	21.43	2	22.40	Norway	Westfal, Larsen & Co.	380.0	53.6	16.6	Buenos Aires, Arg.	Los Angeles, Calif.	General	2,303	6,289	4,722
Georgie	2	6.00	2	11.20	2	22.48	2	23.56	French	French Line	422.2	52.5	21.6	Havre, France	Vancouver, B. C.	General	3,087	6,830	4,932
Egremont	2	9.55	2	11.25	2	23.39	3	8.12	American	Roosevelt S. S. Co., S. B.	410.1	54.2	23.0	New York, N. Y.	Brisbane, Australia	General	2,983	7,490	5,882
Bodegraven	1	13.20	2	13.10	3	00.25	3	1.36	Dutch	Royal Neth. S. S. Co.	400.0	58.6	23.6	Hamburg,Germany	Corral, Chile	General	4,838	7,834	6,018
Varg [1]	2	11.05	2	14.15	3	1.20	3	7.16	Norway	Caucasian Oil Co.	390.6	55.2	17.2	London, England	Los Angeles, Calif.	Ballast		5,983	3,856
Svealand [1]	2	11.57	2	15.30	3	2.10	3	7.42	Swedish	Ore S. S. Corp	561.0	72.0	21.0	Baltimore, Md.	Cruz Grande, Chile	Ballast		15,425	4,421
Trevanion	2	12.10	2	16.50	3	3.05	3	4.24	British	Canadian Transp. Co.	375.0	51.0	23.9	Antilla, Cuba	Shanghai, China	Sugar	7,032	5,216	3,957
Canadian Ranger	2	13.20	2	17.55	3	3.48	3	5.20	British	Can. Nat. Steamships	400.0	52.0	17.0	Halifax, N. S.	Vancouver, B. C.	General	730	5,879	4,121
La Paz [3]	1	18.30	2	20.35	3	6.29	3	22.44	British	Pacific Steam Nav. Co.	406.0	54.0	20.3	Hull, England	Corral, Chile	General	4,691	7,216	4,912
Illingworth	2	15.05	3	6.15	3	13.55	3	15.30	British	R. S. Dalglish & Co.	430.0	59.0	26.6	Palo Alto, Cuba	Shanghai, China	Sugar	7,700	6,987	4,933
Guardian [7]	2	15.40	3	6.10	3	13.59			American	All America Cables	278.0	36.0	17.5	Cartagena, Col.	Callao, Peru	Cables	240	1,860	950
Springbank [5]	3	2.00	3	7.10	3	15.52	3	19.13	British	Bank Line, Ltd.	420.3	53.9	23.9	Philadelphia, Pa.	Hongkong, China	Case oil, general	6,403	7,100	4,996
Ruth Alexander	3	5.15	3	7.10	3	17.04	4	00.43	American	Dollar Line	455.0	55.0	23.0	New York, N. Y.	San Francisco, Cal.	General	3,640	9,287	6,203
Acme [1]	3	6.10	3	8.25	3	18.59	4	00.27	American	Standard Transp. Co.	435.0	56.0	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,165	4,926
Lochgoil [1]	2	6.15	3	10.10	3	20.05	3	21.25	British	Royal Mail S. P. Co.	485.6	62.3	21.4	Rotterdam,Holland	Vancouver, B. C.	Bananas, general	3,279	10,803	7,606
Pacific Oak	3	2.25	3	13.50	3	21.30	3	22.35	American	Dimon S. S. Corp.	407.0	54.0	21.0	New York, N. Y.	Seattle, Wash	General	3,717	6,687	4,883
Larry Doheny [2]	3	15.15	3	15.25	3	22.25	3	23.35	American	Acewood Pet. Co	430.0	59.2	19.4	New York, N. Y.	Los Angeles, Calif.	Ballast		7,494	5,198
Swan [4]			3	6.15	3	17.06			American	U. S. Navy	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.	([9])			
Motor Sailor			3		3	11.08			American	U. S. Navy				Cristobal, C. Z.	Gatun, C. Z.				
Henry S. Grove	3	21.30	4	6.05	4	13.48	4	18.50	American	Argonaut S. S. Co.	404.0	54.0	28.0	Baltimore, Md.	Tacoma, Wash.	Steel, general	8,293	6,755	4,688
Surico	3	23.58	4	7.25	4	15.06	4	18.15	American	Transmarine Lines	324.0	46.0	17.0	Newark, N. J.	San Francisco, Cal.	General	1,749	3,984	2,628
Mongolia	4	9.10	4	9.55	4	16.33	4	23.56	American	Panama-Pacific Line	600.0	65.3	28.8	New York, N. Y.	San Francisco, Cal.	General	3,302	17,041	11,426
Vestvard [3]	4	2.27	4	10.45	4	19.33			Norwegian.	The Texas Co	386.0	52.9	23.0	Pt. Arthur, Tex.	Fremantle, Aust'lia	Kerosene, case oil	6,661	6,168	4,323
Heinrich Arp	3	22.20	4	12.55	4	20.15	4	21.25	German	Colombian Mar. Co.	237.0	37.0	12.4	New York, N. Y.	Buenaventura, Col.	General	565	1,718	1,167
Wasgenwald	3	6.55	4	13.50	4	21.25	6	12.55	German	Hamburg-AmericanLine	399.0	54.0	24.0	Hamburg,Germany	Valparaiso, Chile	General	4,424	6,536	4,516
West Camargo	4	6.30	4	14.47	4	22.26	4	23.56	American	McCormick S. S. Co.	410.0	54.0	22.0	Rosario, Argentina	Los Angeles, Calif.	General	5,003	6,624	5,040
Esparta	3	18.00	4	17.45	5	00.09	5	1.12	American	United Fruit Co	330.0	44.0	17.4	Cristobal, C. Z.	San Francisco, Cal.	Coffee, bananas	925	3,679	2,373
Californian [1]	4	20.48	4	21.00	5	10.44	5	11.40	American	Amer.-Hawaiian Line	445.0	59.0	20.0	Boston, Mass.	Los Angeles, Calif.	General	4,167	8,567	6,020

[1] Tanker. [6] Mine planter. [7] Cable ship. [8] Gasoline and kerosene. [9] Towing barge.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Orazio [10]	27	16.55	28	1.41	28	9.20	29	16.20	Italian	Italian Line	505.9	61.8	24.0	Valparaiso, Chile	Genoa, Italy	General	1,587	12,977	9,373
Steelore	28	1.15	28	5.30	28	15.45	28	15.45	American	Ore S. S. Corp	550.3	72.2	34.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	20,000	15,551	4,297
Illinois	28	14.35	28	15.45	29	9.10	30	7.55	French	French Line	400.3	51.6	26.0	Iquique, Chile	Le Havre, France	Sugar, nitrates	7,76	6,336	4,301

[10] Motor ship.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Guardian [11]	28	18.00	29	1.15	29	9 45	29	12.10	American	All America Cables	278.4	36.0	15.0	Puntarenas, C. R.	Cartagena, Col.	Cable	240	1,860	950
Benvannoch	28	15.50	29	2.47	29	10.58	29	14.03	British	W. Thompson & Co.	401.0	52.1	26 0	Vancouver, B. C.	Liverpool, England	Lumber, wheat	7,940	6,583	4,963
Glasgow Maru	28	20.30	29	3.49	29	12.23	29	15.40	Japanese	Kokusai Kisen Kaisha	385.0	51 0	27.0	Caleta Colosa, Chile	Charleston, S. C.	Nitrates	8,200	6,213	4,665
Cubore [10]	28	17.30	29	4.55	29	13.50	29	13.50	American	Calmar S. S. Corp	450 0	57 2	29.0	Gray's Harb., Wash.	Philadelphia, Pa.	Lumber	9,500	7,956	4,866
Queen of Scots [12]			29	6.44					American	A. J. Drexel, Jr	175.7	28.4	12.0	Balboa, C. Z	Gatun Lake, C. Z.			654	303
Ebro	29	7.10	29	8 33	29	15.25	29	22.15	British	Pacific Steam Nav. Co.	450 3	57.8	25.6	Talcahuano, Chile	New York, N. Y.	General	3,801	9,291	6,301
Fella [10]	29	10 25	29	11 24	29	19.10	30	00 45	Italian	Nav. Libera-Triestina	436 6	55 4	27 0	Tacoma, Wash	Venice, Italy	General	8,900	7,784	6,035
Chincha	29	11 20	29	12 03	29	20 30	29	21 30	American	Planet Line	403.0	52 3	24 2	Westport, Oreg.	New York, N. Y.	Lumber	5,608	6,872	4,973
Aladdin [1]	29	13.10	29	13 56	29	21 45	29	21 45	American	Standard Transp. Co.	435 6	56 2	27 0	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,560	7,408	5,112
Almagro	29	20 30	29	22 58	30	9 10	30	16 20	British	Pacific Steam Nav. Co	303 4	43 0	14 3	Callao, Peru	New York, N. Y.	[13]	690	2,826	1,770
Boskoop	29	22.50	30	1 58	30	10 24	30	15 40	Dutch	Royal Neth. S. S. Co.	400 6	58 3	26 0	Corral, Chile	Antwerp, Begium	General	8,585	7,817	6,097
Lochmonar [10]	29	15 45	30	3 18	30	11 25	30	21 35	British	Royal Mail S. P. Co	485 6	62 2	28.0	Vancouver, B. C.	Rotterdam, Holland	General	7,670	10,772	7,851
W. L. Steed [1]	29	20 00	30	5 09	30	12 35	30	12 35	American	Huasteca Petroleum Co	416 8	56 1	27.0	Los Angeles, Calif	Baltimore, Md.	Gasoline	8,800	6,751	4,795
California	29	12.05	30	6 18	30	14 20	30	14 55	American	Panama-Pacific Line	574 4	80 3	27 0	San Francisco, Cal.	New York, N. Y.	General	3,915	24,504	17,565
Chelsea	29	22 20	30	7.09	30	16 40	30	22 25	British	Canadian Transp. Co	396.1	52.8	23 6	Vancouver, B. C.	Montreal, Canada	Lumber	6,300	5,374	3,771
Saramacca	30	5 30	30	7 51	30	15 45	5-1	11 05	American	United Fruit Co.	336.7	42 0	18.0	San Francisco, Cal.	New Orleans, La.	[14]	704	3,668	2,308
Tilthorn	30	00 40	30	8.21	30	17.05	30	17 05	Norwegian	O. G. & I. H. Olsen	420.2	53 9	29.0	Antofagasta, Chile	New Orleans, La	Nitrates	10,250	6,591	3,771
Finn [10]	30	1 30	30	8 50	30	17 45	30	20 45	Swedish	Colombian Mar. Co.	273 7	41.0	14 5	Buenaventura, Col.	New York, N. Y.	[15]	994	2,472	1,513
Ohioan	30	7 10	30	9 14	30	18 30	30	18 30	American	Amer.-Hawaiian Line	407.7	53 7	25.2	Portland, Oreg.	Boston, Mass.	General	5,666	7,103	4,991
Clan Malcolm	30	9.15	30	10 20	30	19 35	30	22 55	British	Cayzer Irvine & Co	405.0	53 3	24.6	Apia, Samoa Is.	United Kingdom	Copra	6,445	6,202	4,145
Lewis Luckenbach	30	11 55	30	12.36	30	20.30	30	21 50	American	Luckenbach Line	496 0	68.2	30.6	Portland, Oreg	Boston, Mass.	Lumber, general.	12,054	11,487	8,762
Sucarseco	30	21 25	30	22.10	5-1	9.00	5-1	9 00	American	Transmarine Lines.	324 0	46 2	23 5	Aberdeen, Wash	Newark, N. J	Lumber	3,900	3,984	2,628
New Britian	5-1	00 30	5-1	2.52	1	10 00	1	10 10	American	Black Diamond S. S. Co.	385.8	52 2	23 1	Portland, Oreg	New York, N. Y.	Lumber	7,047	5,684	4,082
Cedarhurst [1]	1	3.20	1	5 07	1	13 10	1	13 10	American	T. P. Gallagher	390 0	54.2	26.0	Manila, P. I	New York, N. Y.	Coconut oil	6,154	6,209	4,303
Cities Service Empire [1]	1	5.54	1	7.12	1	15.10	1	16 40	American	Cities Service Corp	464.7	60 2	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	10,300	8,561	5,997
Mallard			1	7.13	1	15.15			American	U. S. Navy	187.0	32 0		Balboa, C. Z	Cristobal, C. Z	[16]			
Hanover	1	2 15	1	9 31	1	17.15	1	17 15	American	Tampa Interocean Co.	435.0	57 6	26 1	Manila, P. I	New Orleans, La.	[17]	8,963	7,982	5,911
Callandia	1	9.30	1	10.15	1	20.15	1	21 55	British	Henry Thomson	400.0	52 0	27.6	Portland, Oreg	Limerick, Ireland.	Wheat	8,173	6,517	4,777
Mataroa	1	9.52	1	10.51	1				British	Shaw, Savill & Albion	500.4	63.2	27.0	Wellington, N. Z.	London, England	[18]	5,000	13,590	9,233
Ecuador	1	8.00	1	14.52	1	21.40	3	1.50	American	Panama Mail S. S. Co.	380.6	48 7	21.0	San Francisco, Cal.	New York, N. Y.	General	2,771	5,926	4,178
Canadian Scottish	1	17.00	1	22.05	2	8.55	2	8.55	British	Can. Nat. Steamships	400.0	52 2	17.2	Melbourne, Aust'lia	New York, N. Y.	General	2,032	5,905	4,126
Paraguay	1	19.55	1	23.51	2	10.35	2	14.30	German	Hamburg-American Line	385.7	52.7	22.8	Valparaiso, Chile	Europe	Nitrates	6,751	5,279	4,034
Herminius	1	20.50	2	1.08	2	12.09	2	17.00	British	Shaw, Savill & Albion	477.6	63.1	23.5	Pt. Chalmers, N.Z.	London, England	General	5,674	10,973	7,848
Salvador	2	00.50	2	2.25	2	10.25			British	Pacific Steam Nav. Co.	215.0	33.5	15.3	Champerico, Guat.	Cristobal, C. Z.	[19]	487	1,270	735

[1] Tanker. [11] Cable ship. [12] Yacht. [13] Coffee, cocoa, and hats. [14] Coffee, hides, and general. [15] Coffee, hats, horns, and hides. [16] Towing barge.
[17] Sugar, lumber, and coconut oil. [18] Refrigerated and general. [19] Coffee, bullion, and general.

Jedmoor [19]	1	19 50	2	4.01	2	13.00	2	13.00	British	Moore Line, Ltd	375.0	52.6	26.0	Vancouver, B. C.	Greece	Wheat	7,480	6,050	4,615
Willfaro	2	6.00	2	7.31	2	15.00	2	15.00	American	Williams S. S. Line	386.8	52.2	25.3	Seattle, Wash	Baltimore, Md	Lumber	6,466	5,484	4,070
Chetopa	2	3.00	2	7.49	2	16.18	3	2.45	American	Charles Nelson & Co	324.0	46.2	24.9	San Francisco, Cal.	Baltimore, Md	Lumber, general	2,570	3,984	2,628
El Ciervo [1]	2	7.15	2	8.39	2	17.45	2	20.10	British	C. T. Bowring	407.4	52.2	25.6	La Libertad, Ecua.	Philadelphia, Pa.	Crude oil	7,947	6,046	4,326
S-16 [20]			2	8.40	2	16.15			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
Montrolite [1 10]	2	9.45	2	10.28	2	18.50	2	18.50	British	Imperial Oil, Ltd	510.9	62.8	30.0	Talara, Peru	Montreal, Canada	Crude oil	15,300	11,505	7,302
L. A. Christensen [10]	2	11.00	2	11.46	2	20.00	2	20.00	Norway	Fern Line	382.7	53.4	25.9	Bangkok, Siam	Habana, Cuba	Rice	7,084	6,118	4,245
Hadnot [1]	2	11.40	2	12.23	2	21.25	2	21.25	American	Cities Service Corp.	416.9	56.2	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,823	6,706	4,639
Skegness	2	13.10	2	14.01	2	22.48	3	1.15	British	W. R. Smith & Sons	401.6	54.3	25.0	Vancouver, B. C.	Manchester, Eng.	General	7,550	6,621	4,916
Saale [10]	2	14.10	2	14.56	2	23.20	3	15.12	German	North German Lloyd	471.9	61.4	27.3	Vancouver, B. C.	Hamburg, Germany	General, grain	8,800	9,335	6,844
Middlesex	2	14.15	2	15.10	2	23.45	3	2.35	British	Federal Steam Nav. Co.	460.0	62.8	23.0	Wellington, N. Z.	Rotterdam, Holland	Frozen, general	5,811	10,663	7,727
Pacific Pine	2	14.25	3	4.47	3	13.53	3	13.53	American	Dimon S. S. Corp.	410.5	54.3	25.0	Tacoma, Wash.	New York, N. Y.	Lumber	7,500	6,583	4,808
S-17 [20]			3	6.14	3	12.10			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
Minnesotan	3	4.30	3	6.55	3	14.25	3	14.25	American	Amer.-Hawaiian Line	407.7	53.7	25.0	Seattle, Wash	Boston, Mass	General	5,551	7,150	5,024
Canadian Victor	3	9.35	3	10.22	3	19.25	3	22.55	British	Can. Nat. Steamships	400.0	52.4	17.0	Sydney, Australia.	Montreal, Canada	General	3,854	5,956	4,172
Esparta	3	9.55	3	10.40	3	18.00	4	17.45	American	United Fruit Co	330.6	44.6	17.9	San Francisco, Cal.	Cristobal, C. Z.	Coffee, general	815	3,679	2,373
Benjamin Franklin [10]	3	13.50	3	14.22	3	22.00	4	18.45	Norwegian	Fred Olsen & Co	452.0	59.5	27.4	Vancouver, B. C.	Oslo, Norway	[24]	8,023	9,082	6,140
Van	3	18.10	3	22.22	4	8.55	4	10.45	Belgian	Cia. Inter. de Comm. & de' Armement	460.4	58.2	28.0	Iquique, Chile	Azores	Nitrates	9,800	9,068	6,211
Robin Gray	3	21.45	4	00.09	4	11.10	4	13.40	American	Seas Shipping Co.	424.8	55.2	26.0	Englewood, B. C.	New York, N. Y.	Lumber	7,286	7,472	5,542
St. Mihiel [21]	3	12.10	4	00.28	4	10.10	4	17.05	American	U. S. Army	448.0	58.0	24.0	San Francisco, Cal.	New York, N. Y.	Army supplies	178		
Julia Luckenbach	4	00.05	4	3.20	4	11.40	4	11.40	American	Luckenbach Line	436.6	57.2	25.6	Portland, Oreg.	Mobile, Ala.	Lumber, general	5,858	8,543	6,402
Pat Doheny [1]	4	1.30	4	5.37	4	13.30	4	13.30	American	Richfield Oil Co	430.2	59.2	27.2	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,124		
Bridge [22]	3	21.50	4	6.17	4	14.30	4	16.00	American	U. S. Navy	423.0	55.2	17.6	Corinto, Nicaragua	Hampton Rds., Va.	Naval stores	318		
Albert Vogler	4	5.00	4	7.18	4	15.36	4	23.05	German	Hamburg-AmericanLine	409.8	53.8	22.6	Valparaiso, Chile	Hamburg, Germany	[24]	6,553	7,173	5,514
Orient	4	7.10	4	8.00	4	16.40	4	16.40	American	Oriental Navigation Co.	376.4	52.3	24.6	Aberdeen, Wash.	Wilmington, Del.	Lumber		5,455	3,879
Uribe	4	7.35	4	8.43	4	16.55			Colombian	Colombia Mar. Co.	227.4	31.7	14.1	Buenaventura, Col.	Cristobal, C. Z.	[25]	720	1,154	663
Sun [1 10]	4	11.00	4	12.00	4	19.35	4	19.35	American	Sun Oil Co.	480.6	66.0	29.0	Los Angeles, Calif.	Chester, Pa.	Gasoline in bulk	13,701	9,621	6,476
Taketoyo Maru	4	11.00	4	13.17	4	21.10	5	1.10	Japanese	Nippon Yusen Kaisha	445.0	58.0	25.0	Manila, P. I.	New York, N. Y.	General	7,964	7,972	5,687
Empire Arrow [1]	4	11.15	4	14.17	4	22.35	4	22.35	American	Standard Transp. Co.	468.3	62.7	27.0	Los Angeles, Calif	New York, N. Y.	Gasoline	14,104	9,841	6,946

[1] Tanker. [20] Submarine. [21] U. S. Army transport. [22] Supply ship. [23] Wheat, lumber, and general. [24] Nitrates, copper, and general. [25] Coffee, gold, and cylinders.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
April 28	Calamares	United Fruit Co	Port Limon, Costa Rica.
April 28	Cuba	French Line	St. Nazaire via wayports.
April 28	Magallanes	Spanish Line	Barcelona via wayports.
April 28	No. 9775 [26]	Pan-American Airways	Cartagena, Colombia.
April 28	Inapaquina [27]	United Fruit Co	Colon, R. P.
April 28	Anachucuna [27]	United Fruit Co	Colon, R. P.
April 29	Pastores	United Fruit Co	New York via Habana.

* DEPARTURES.

Date.	Vessel.	Line.	For—
April 28	Wanks	Stand. Fruit & S. S. Co.	San Blas, R. P.
April 28	Calamares	United Fruit Co	New York via Habana.
April 28	Inapaquina [27]	United Fruit Co	Colon, R. P.
April 28	Anachucuna [27]	United Fruit Co	Colon, R. P.
April 29	Annetta I. [27]	A Tagaropulos	Colon, R. P.
April 29	Parismina	United Fruit Co	New Orleans via wayp'ts.
April 29	Ancon	Panama R. R. S. S. Line	New York via Haiti.

[26] Air-mail carrier. [27] Motor boat. * Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
April 30	Linda S. [28]	A. L. Surgeon	Colon, R. P.	April 30	Cuba	French Line	Havre via wayports.
April 30	Jesus del Gran Poder [29]	Spanish Government	Paita, Peru	April 30	Linda S. [28]	A. L. Surgeon	Bluefields, Nicaragua.
May 1	Custodian	T. & J. Harrison	Liverpool, England.	May 1	Pastores	United Fruit Co	Port Limon, Costa Rica.
May 1	Coppename	United Fruit Co	New Orleans, La.	May 2	Coppename	United Fruit Co	Port Limon, Costa Rica.
May 1	Manaqui	United Fruit Co	New York.	May 2	Magallanes	Spanish Steamship Line	Barcelona via wayports.
May 1	Talisman	W. Wilhelmsen	Buenos Aires, Argentina.	May 2	Custodian	T. & J. Harrison	Puerto Sagua, Cuba.
May 1	Cundinamarca No. 33 [30]	Scadta Airplane Co	Barranquilla, Colombia.	May 1	Talisman	W. Wilhelmsen	New York, N. Y.
May 1	Impex [28]	Colon, Import and Export Co.	Colon, R. P.	May 2	No. 9685 [30]	Pan-American Airways	Tela via wayports.
May 2	Anachucuna [31]	United Fruit Co	Colon, R. P.	May 2	Anachucuna [31]	United Fruit Co	Colon, R. P.
May 2	Annetta I [32]	A. Tagaropulos	Colon, R. P.	May 2	Annetta I [32]	A Tagaropulos	Colon, R. P.
May 2	Antillian	Leyland Line	Tanamo, Cuba.	May 3	Anachucuna [31]	United Fruit Co	Colon, R. P.
May 2	Sixaola	United Fruit Co	New York via Kingston.	May 3	Swiftwind	Eastern Shell Oil Co	Curacao, D. W. I.
May 2	Swiftwind	Eastern Shell Oil Co	Curacao, D. W. I.	May 3	Sixaola	United Fruit Co	New York via wayports.
May 2	No. 9664 [30]	Pan-American Airways	Managua, Nicaragua.	May 3	Antillian	Leyland Line	Liverpool via wayports.
May 3	Amapala	Stand. Fruit S. S. Co	New Orleans via Habana.	May 3	Cundinamarca No. 33 [30]	Scadta Airplane Co	Barranquilla, Colombia.
May 3	Wanks	Stand. Fruit S. S. Co	San Blas, R. P.	May 4	Manaqui	United Fruit Co	Puerto Colombia.
May 3	Anachucuna [31]	United Fruit Co	Colon, R. P.	May 4	Amapala	Stand. Fruit S. S. Co	New Orleans via wayports.
May 4	Heredia	United Fruit Co	New Orleans via Habana.				
May 4	Saramacca	United Fruit Co	Port Limon via wayports.				
May 4	Bastidas [32]	Colombian Government	Barranquilla, Colombia.				

[28] Motor schooner. [29] Biplane. [30] Air-mail carrier. [31] Motor boat. [32] Tug.

PORT OF BALBOA.

April 29	Bokoya Maru	Nippon Yusen Kaisha	Hongkong, China.	April 29	Bokoya Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
April 30	Epoca [33]	Grace Line	Buenaventura, Colombia.	May 1	Sambu [34]	Hans Elliot	Panama Bay, R. P.
May 1	Sambu [34]	Hans Elliot	El Real, R. P.	May 1	Dos Hermanos [34]	A. Valdez	Panama Bay, R. P.
May 1	Dos Hermanos [34]	A. Valdez	Bayano River, R. P.	May 1	Dixie [35]	Pacific Fruit Co	Panama Bay, R. P.
May 1	Dixie [35]	Pacific Fruit Co	Bayano River, R. P.	May 1	El Colon [34]	Hans Elliot	Panama Bay, R. P.
May 1	El Colon [34]	Hans Elliot	El Real, R. P.	May 2	Anyo Maru	Nippon Yusen Kaisha	Hongkong, China.
May 2	Anyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.	May 2	S. A. Perkins	James Griffiths & Son	Buenaventura, Colombia.
May 2	San Luis [34]	Chiriqui Land Co	Puerto Armuelles, R. P.	May 2	San Luis [34]	Chiriqui Land Co	Puerto Armuelles, R. P.
May 2	Carabobo	Colombian Government	Buenaventura, Colombia.				

[33] Motor ship. [34] Motor schooner. [35] Motor schooner and barge. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., May 15, 1929. No. 41.

Record Cargo of Coal and Unloading Record.

The steamship *Chilore* arrived at the coaling station at Cristobal from Norfolk, Virginia, on May 5, 1929, with a cargo of 20,069 tons of coal. This establishes a new record for cargo of coal received in one shipment at the plant, exceeding by 14 tons the cargo of 20,055 tons brought to the plant by the same vessel on June 21, 1926.

The shipment of 20,069 tons is believed to be the largest cargo of coal ever shipped. It is not, however, a record for the largest cargo of any kind ever handled through a port of the Canal. The tanker *William Rockefeller*, transiting the Canal on October 27, 1922, carried 22,000 tons of crude oil.

In handling the cargo from the *Chilore* arriving May 5, 1929, the coaling plant established a new record for rapid handling for this ship. The actual discharging time was 22 hours and 45 minutes, compared with the previous best record of 23 hours and 5 minutes for handling 20,038 tons arriving by the *Chilore* on February 29, 1928. The cargo of May 5, 1929, was discharged by 3 unloader towers; the tower-hours amounted to 66 hours and 25 minutes, and the rate of discharge averaged over 302 tons per tower per hour. The aggregate rate of discharge for the 22 hours and 45 minutes of actual discharging time was slightly over 882 tons per hour. This is the fastest rate of discharge yet attained for the *Chilore*, though this rate has been exceeded on other vessels of the Ore Steamship Line carrying smaller cargoes. The fastest rate of discharge yet attained for all vessels was in the discharge of the *Bethore* on January 8th, 1929, when 8,586 tons of coal were unloaded in 8 hours and 50 minutes by 3 unloader towers working 26½ tower-hours, an average of 324 tons per tower-hour. The rated capacity of these towers is 250 tons per hour.

Following are notable records for the unloading of coal at the Cristobal Plant:

Vessel.	Date.	Tons of coal.	Time for unloading		Unloader towers used.	Total tower-hours.	Tons per tower-hour.	Aggregate tons per hour.
			Hrs.	*Min.*				
Chilore	October 22, 1927	20,015	24	40	3	72-5/6	275	811
Marore	January 25, 1928	8,730	9	10	3	27½	317	952
Chilore	February 29, 1928	20,038	23	05	3	67¾	296	868
Bethore	January 8, 1929	8,586	8	50	3	26½	324	972
Chilore	May 5 1929	20,069	22	45	3	66-5/12	302	882

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *May 14, 1929.*

No. 536

1. The following notice is quoted from Notice to Mariners, Washington, D. C., May 4, 1929:

Colombia, West Coast, Buenaventura River Entrance, Light Buoy Extinguished. The second officer of the Norwegian steamer *Romulus* reports that on March 3, 1929, the light on Light Buoy No. 2 at the entrance to the Buenaventura River was extinguished.

Approximate position: 3° 46′ 10″ N., 77° 18′ 20″ W.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 11, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
City of San Francisco [2]	4-25	9.10	5	6.04	5	14 33	5	17 40	Panaman	Panama Mail S. S. Co.	296 0	46.0	20.7	Cristobal, C. Z.	San Francisco, Cal.	General	3,356	3,848	2,606
Mystic	5–4	21.10	5	6.25	5	14.40	5	16.00	American	Beaverson Corporation	400 7	54 2	21.6	Baltimore, Md	Los Angeles, Calif.	General	5,791	6,623	4,668
Leme [2]	4	12 45	5	7.10	5	16.34	5	17.40	Italian	Nav. Libera-Triestina	450 0	50 0	20.10	Trieste, Italy	Vancouver, B. C.	General	1,388	8,805	6,497
Robin Hood	4	23 25	5	9.00	5	19 14	6	1.00	American	Isthmian S. S. Lines	424 8	55.2	27.0	Mobile, Ala	Vancouver, B. C.	Steel products	9,347	7,473	5,533
Britta [1 2]	5	6.20	5	9.35	5	20 03	5	23 05	Norwegian.	Arth. H. Mathiesen	407 8	54 7	17 6	Rotterdam, Holland	Los Angeles, Calif.	Ballast		6,539	4,252
Plow City	5	8 35	5	10 55	5	19 08	5	20.15	American	Charles Nelson Line	324 0	46 2	18.10	Baltimore, Md	Seattle, Wash	General	3,000	3,983	2,631
Floreana [3]	4	17.00	5	14.15	5	22.50	6	00 05	Colombian.	Colombian Transp. Co.	150.0	27.0	10.4	Cristobal, C. Z	Buenaventura, Col.	General	325	410	307
San Leonardo [2]	5	14.45	5	15.00	5	22.50	6	3.08	British	Anglo-Mexican Pet. Co.	401 9	55 0	18 0	Newcastle, Eng	Los Angeles, Calif.	Ballast		5,962	3,650
Defiance [2]	5	14.35	5	16.10	5	24.00	7	00.41	American	Roosevelt S. S. Co., S. B.	456.0	56 0	24.3	New York, N. Y.	Hakodate, Japan	Case oil, general	6,746	8,313	5,901
Ucayali	4-27	20.40	5	16.35	6	00.40			Peruvian	Peruvian S. S. Line	374.7	46 0	17.10	Cristobal, C. Z.	Callao, Peru	General	308	4,466	2,405
Sir Osborn Holmden [1 2]	5-5	18.05	5	18.25	6	1.40	6	5 24	Norwegian.	Anglo-Saxon Pet. Co.	471 8	64.4	20.0	Rotterdam, Holland	Los Angeles, Calif.	Ballast		9,562	6,604
Major Pullen [1]			5		5	9 55			American	U. S. Army				Cristobal, C. Z	Gatun, C. Z.				
Agwilake [1]	5	20.55	6	6.20	6	13.40	6	14.35	American	Standard Shipping Co.	468.3	62.7	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,802	6,957
S-20 [5]			6	7 50	6	14.58			American	U. S. Navy	219.0	20 8		Cristobal, C. Z.	Balboa, C. Z.				
S-12 [5]			6	7 50	6	15.34			American	U. S. Navy	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.				
Buenaventura	5	3 15	6	9.35	6	16 20	6	17 35	American	Panama R. R. S. S. Line	251.0	43 0	17.10	New York, N. Y.	Guayaquil, Ecuad'r.	General	1,187	2,873	1,776
Witram	6	1.50	6	11.25	6	18.11	6	19.45	German	North German Lloyd	449.0	58.2	22.6	Bremen, Germany	Vancouver, B. C.	General	3,320	7,820	5,661
West Mingo	6	8 55	6	12 10	6	19.40	6	20 50	American	States S. S. Co	410.0	54.4	18.9	Wilmington, Del.	Tacoma, Wash	General	2,600	6,476	4,682
Solana [1]	6	12.10	6	12 35	6	20.30	6	22 15	American	Tidewater Oil Co	419 5	56 5	19 8	Bayonne, N. J	San Francisco, Cal.	Ballast		7,060	5,025
Silverash [2]	6	13.40	6	14.05	6	21.23	6	22.15	British	Silver Line, Ltd	425.0	58.3	20.6	New York, N. Y.	Yokohama, Japan	General	4,276	8,219	5,861
Lena Luckenbach	6	15.17	6	15.40	6	22.30	6	23.43	American	Luckenbach Line	425.0	53.8	23.0	New Orleans, La.	Tacoma, Wash	General	5,597	7,217	5,295
Patrick Henry	6	19.50	6	21.17	7	4.46	7	6.09	American	Amer.-Gulf Orient Line	439.0	60.0	28 0	New Orleans, La.	Manila, P. I.	(8)	9,308	8,987	6,612
Swan [6]			6	6.15	6	13.34			American	U. S. Navy	180 0	35.6		Cristobal, C. Z.	Balboa, C. Z.				
Mallard [6]			6	7.50	6	15.05			American	U. S. Navy	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.				
Mary Ann [4]			6		6	14.24			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	(9)		9	9
No. 31083 [7]			6		6	14.24			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	Ballast		11	11
No. 31084 [7]			6		6	14.24			American	United Fruit Co				Cristobal, C. Z.	Gatun, C. Z.	Ballast		11	11
Chilore	5	6.20	7	6.20	7	13.33	7	14.40	American	Ore S. S. Corp	549.0	72 0	21.10	Norfolk, Va	Cruz Grande, Chile	Ballast		14,538	9,348
Santa Rosalia	6	14.45	7	7.05	7	15.20	7	16.45	American	Isthmian S. S. Lines	405 0	52.6	25.5	Philadelphia, Pa.	Corral, Chile	Steel, general	7,345	5,900	4,443
Geo. W. Barnes [1]	6	23.15	7	9.00	7	16.17	7	17.30	American	Huasteca Petroleum Co.	416.8	56.1	18.0	Jacksonville, Fla.	Los Angeles, Calif.	Ballast		6,763	4,759
Texan	7	15.53	7	16.05	7	22.18	7	23 25	American	Amer.-Hawaiian Line	471.0	57 2	21.0	New York, N. Y.	Seattle, Wash	General	3,552	9,154	6,966
Fairfield City	7	23.30	8	6.20	8	14.35	8	20.40	American	Isthmian S. S. Lines	424.2	56.2	25.0	New York, N. Y.	Manila, P. I.	General	8,140	7,611	5,450
Birmingham City	8	2 35	8	7.10	8	15.26	8	21.43	American	Isthmian S. S. Lines	411 6	55 0	26.7	Baltimore, Md.	Vancouver, B. C.	Steel, general	8,500	7,304	5,188
Induna	8	7.55	8	9.15	8	16.13	8	17.45	British	Wessel, Duval & Co	402.0	52.2	18.0	New York, N. Y.	Talcahuano, Chile	General	700	5,634	4,172

[1] Tanker. [2] Motor ship. [3] Motor schooner. [4] Launch. [5] Submarine. [6] Mine sweeper. [7] Barge. [8] Steel, oil, and general. [9] Towing barge.

Valacia	7	22.15	8	13.00	9	20.15	9	2.05	British	Com'lth & Dom. Line	460.0	57.0	24.4	Liverpool, England	Bluff, N. Z.	General	7,400	8,460	6,425
Aconcagua	8	11.00	8	15.00	8	21.09	8	22.18	Chilean	South American Line	422.8	56.2	25.6	New York, N. Y.	Valparaiso, Chile	General	2,749	7,764	4,705
San Francisco [2]	7	5.05	8	16.10	8	22.40	8	23.56	German	Hamburg-AmericanLine	432.0	59.0	23.0	Hamburg,Germany	Vancouver, B. C.	General, bananas	5,501	8,454	6,344
Ensley City	8	15.18	8	16.05	9	23.35	9	1.00	American	U. S. Steel Products Co.	395.5	55.0	25.0	Mobile, Ala	Shanghai, China	General, steel	8,144	7,330	5,239
S. C. T. Dodd [1]	8	15.57	8	17.00	9	00.30	9	1.45	American	Huasteca Petroleum Co.	425.0	57.2	19.6	Baltimore, Md	Los Angeles, Calif.	Ballast		7,481	4,975
Oropesa	8	18.05	9	6.20	9	13.40	9	14.50	British	Pacific Steam Nav. Co.	530.0	66.0	23.6	Liverpool, England	Talcahuano, Chile	General	3,295½	14,827	10,630
Katrina Luckenbach	8	22.30	9	7.35	9	14.45	9	18.45	American	Luckenbach Line	446.0	56.1	25.10	Boston, Mass	Los Angeles, Calif.	General	5,732	8,508	6,179
Adria [1] [2]	9	4.05	9	8.25	9	15.33	9	20.00	German	Union Petroleum Co.	412.0	55.0	20.0	Glasgow - England	Los Angeles, Calif.	Ballast		6,579	4,574
F. H. Hillman [1]	9	5.40	9	8.45	9	16.22	9	17.40	American	Standard Oil Co	500.0	68.2	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		11,225	7,913
Leise Maersk [2]	9	10.25	9	10.40	9	17.38	9	18.45	Danish	Isbrandtsen Moller Co.	302.0	44.2	18.0	New York, N. Y.	Batavia, Java	General	2,605	3,212	2,206
Alpha [1]	3	15.45	9	16 12	9	23.05	14	2.30	American	James W. Perry	90.8	26.0	6.3	New York, N. Y.	Los Angeles, Calif.	Ballast		160	114
W. H. Libby [1]	9	16.10	9	16 25	10	17.30	10	18.49	American	Tidewater Oil Co.	462.0	60.2	21.0	New York, N. Y.	Los Angeles, Calif.	Ballast		8,461	6,104
Emil Kirdorf	8	16.30	9	19.45	10	3.18	10	4.45	German	Hamburg-AmericanLine	409.8	53.9	21.0	Hamburg,Germany	San Antonio, Chile.	General	5,735	7,141	5,468
Condor	9	19.25	9	19.55	10	4.21	10	5.25	Chilean	R. W. James & Co.	365.4	45.3	21.6	New York, N. Y.	Valparaiso, Chile	General	1,140	4,421	3,063
Somme [11]	9	7.40	9	20.05	10	5.05	10	6.09	American	U. S. Army	448.0	58.0	24.6	New York, N. Y.	San Francisco, Cal.	General	577		
Motor Sailor			9		9	8.29			American	U. S. Navy				Cristobal, C. Z.	Gatun, C. Z.				
Caldas [2]	4-26	16.40	10	6 05	10	17.30	10	22.00	Colombian	National Navigation Co.	116.0	21.0	8.8	Cristobal, C. Z.	Buenaventura, Col.	General	201	211	124
Willboro	5-10	5.20	10	6.25	10	18.30	10	19.30	American	Williams S. S. Line	414.7	55.7	17.0	Baltimore, Md	Seattle, Wash	General	4,228	7,717	5,763
Astral [1]	10	5.40	10	6 55	10	19 15	10	20.09	American	Standard Transp. Co.	439.0	58.0	20.0	Providence, R. I.	Los Angeles, Calif.	Ballast		8,913	6,210
Oakmar	10	7.00	10	8 45	10	20.20	10	21 45	American	Calmar S. S. Corp.	384.4	51.2	25.0	Baltimore, Md	Seattle, Wash	Steel, general	7,731	6,327	4,433
Skraastad [2]	10	6.05	10	10.00	10	21 10	10	22.30	Norwegian	Fern Line	382 7	53.3	26.0	Tampa, Fla	Shanghai, China	General	7,312	6,082	4,236
Key West	10	18.35	10	19.00	11	2.40	11	4.18	Norwegian	Knut Knutsen	381.4	53.2	19.0	Oslo, Norway	Talcahuano, Chile	General	5,964	5,585	4,157
Sylvan Arrow [1]	10	19.05	10	19 25	11	5.00	11	6.00	American	Standard Oil Co.	467.6	62 7	19.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,698	6,900
Pacific Enterprise [2]	8	7.40	11	6 05	11	15.25	11	16.45	British	Furness, Withy & Co.	435.0	60.1	20 0	Glasgow-England	Vancouver, B. C.	General, bananas	1,762	9,641	6,989
La Perla	10	10.40	11	6.25	11	21.18	12	1.36	American	United Fruit Co	325 2	48 1	19.5	Cristobal, C. Z	San Francisco, Cal.	General, bananas	695½	4,033	2,261
Glamorganshire	9	16.40	11	7.00	11	16 31	11	17.40	British	Royal Mail S. P. Co.	445.0	58.0	21 3	Antwerp, Belgium	Vancouver, B. C.	General	4,534	8,229	5,982
Nosa Queen	10	14.50	11	7 10	11	17.41	11	19 04	American	N. O. & S. A. S. S. Line	324 0	46.2	19 7	New Orleans, La	Talcahuano, Chile	Steel, general	1,823		
Cerigo	5	14.55	11	8.50	11	16 33	11	17.40	German	Hamburg-AmericanLine	227.0	34.0	13.0	Cristobal, C. Z	Guayaquil, Ecuad'r	General	225	1,016	1,011
Temple Moat	11	5.20	11	9.20	11	17.35	11	19.04	British	Com'lth & Dom. Line	391.0	53.0	19.4	New York, N. Y.	Adelaide, Australia	General	4,944	5,919	4,302
San Eduardo [1]	10	19.00	11	9.45	11	18 24	11	19 34	British	Anglo-Mexican Pet. Co	420.0	54 0	22.0	London, England	Los Angeles, Calif.	Ballast		6,390	4,382
Melpomene [1]	11	12.15	11	12.30	11	19.13	11	20.45	French	Desmarais Freres	425.0	56.0	20 00	Cette, France	Los Angeles, Calif.	Ballast		7,085	5,050
Helen Whittier	11	11.50	11	14.55	11	22.35	12	00.05	American	Christensen S. S. Co	409.6	54.2	20.0	Baltimore, Md	Los Angeles, Calif.	General	3,550		
Helen Olmsted [1]	11	19.05	11	19 35	12	3.14	12	4.32	American	Texas S. S. Co.	425 8	57 0	21 0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,484	5,216
Hawaiian	11	18 15	11	20.25	12	11.14	12	12.35	American	Amer.-Hawaiian Line	404.0	53.9	20.8	Boston, Mass	Portland, Oreg	General	3,801	6,766	4,767
Motor Sailor			11		11	14 07			American	U. S. Navy				Cristobal, C. Z	Gatun, C. Z.				
Motor Sailor			11		11	22 45			American	U. S. Navy				Cristobal, C. Z	Gatun, C. Z.				

[1] Tanker. [10] Yacht. [11] Transport. [12] Tug. [13] Cocoa, tagua, coffee, and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Gredion	4	20.00	5	00.15	5	8 50	5	11.45	British	Bowing & Co	400.6	52.3	25.6	Iquique, Chile	Charleston, S. C	Nitrates	7,300	5,687	4,057
Guayaquil	5	30 05	5	1.05	5	8.50	6	15.12	American	Panama R. R. S. S. Line	251.0	43.6	15.1	Guayaquil, Ecuad'r	New York, N. Y.	General	896	2,874	1,944
Sheaf Mead	5	30 30	5	1 57	5	10.00	5	11.45	British	Canadian Transp. Co	380.2	53.5	23.6	Vancouver, B. C.	Boston, Mass	Lumber	6,528	5,750	4,466
Eendijk	5	1 00	5	3.45	5	12 50	5	20.45	Dutch	N. Pacific Coast Serv.	469.7	58.2	24.0	Vancouver, B. C.	Rotterdam,Holland	General	8,565	8,514	6,066
El Lobo [1]	4	3.00	5	6 18	5	15.20	6	17.35	British	C. T. Bowring & Co	385.2	51.0	24.0	La Libertad, Ecua'r	Philadelphia, Pa.	Crude oil	6,170	4,851	3,326
Swan			5	6.24	5	15.00	6	6.15	American	U. S. Navy	187.0			Balboa, C. Z	Cristobal, C. Z.	[12]			
Cerigo	5	5.00	5	7.45	5	14.55			German	Hamburg-AmericanLine	227.2	34.4	18.0	Guayaquil, Ecuad'r	Cristobal, C. Z.	[13]	412	1,572	1,011

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Hanley	5	8 00	5	9 18	5	17 45	5	17 45	American	Hanley S. S. Corp	410 0	56 0	27 0	Everett, Wash	Newark, N. J	Lumber	9,681	8,310	6,005
Coptic [14]	5	4 00	5	13 33	5	21 05	5	21 05	British	Shaw, Savill & Albion	483 0	64 2	26 0	Gladstone, N. Z	London, England	Frozen, general	8,000	11,819	8,366
West Cape	5	14 20	5	15 02	5	23 25	5	23 25	American	Munson, McCor'k Line	409 5	54 2	24 4	Tacoma, Wash	Ponce, P. R	Lumber, general	8,500	6,566	4,960
La Marseillaise	5	16 20	5	23 42	6	9 30	7	6 10	French	French Line	429 5	58 3	27 6	Vancouver, B. C	Le Havre, France	General	9,932	8,079	5,580
Kalimba	5	20 30	6	1 27	6	10 20	6	10 20	British	Moore & McCormick	402 0	52 3	24 0	Taltal, Chile	Savannah, Ga	Nitrates	7,560	5,602	4,177
Phoenix [1]	6	1 00	6	2 50	6	13 20	6	15 10	American	American Tankers Corp	400 8	54 3	27 9	Hilo, T. H	Mobile, Ala	Molasses	9,374	6,336	4,389
Havre Maru	5	7 25	6	6 58	6	14 40	7	00 25	Japanese	Osaka Shosen Kaisha	407 3	51 0	20 0	Los Angeles, Calif	Philadelphia, Pa	General	3,998	6,539	4,773
Santa Teresa	6	9 25	6	12 16	6	18 55	6	22 25	American	Grace Line	360 3	51 0	25 8	Talcahuano, Chile	New York, N. Y	General	4,116	5,726	4,086
Fishpool	6	11 40	6	12 32	6	21 17	6	23 40	British	Sir R. Ropner & Co	379 0	56 0	22 9	Vancouver, B. C	Philadelphia, Pa	Lumber	5,000	5,487	4,122
Calmar	6	16 05	6	16 44	7	8 40	7	8 40	American	Calmar S. S. Corp	386 0	51 2	26 0	Aberdeen, Wash	New York, N. Y	Lumber	6,890	6,347	4,453
Virginian	6	22 30	7	00 25	7	9 55	7	9 55	American	Amer.-Hawaiian Line	491 5	58 2	25 0	Portland, Oreg	Boston, Mass	Lumber, general	6,200	10,491	7,601
J. L. Luckenbach	6	22 35	7	1 00	7	11 10	7	11 10	American	Luckenbach Line	448 9	60 2	29 0	Portland, Oreg	Boston, Mass	General	8,000	9,292	6,861
Calliope [14]	6	23 30	7	5 14	7	13 05	7	13 05	Danzig	Baltic-Amer. Pet. Co	470 2	63 2	27 0	Talara, Peru	Rotterdam, Holland	Peru naphtha	11,300	9,001	5,927
Invincible	7	8 05	7	8 48	7	16 10	7	16 10	American	American-Pioneer Line	440 0	56 0	28 0	Cebu, P. I	New York, N. Y	[15]	10,204	8,329	6,157
Karachi Maru	7	15 05	7	15 45	7	23 15	8	6 35	Japanese	Kokusai Kisen Kaisha	385 0	51 0	24 5	Pulupandan, P. I	New York, N. Y	Sugar	7,400	5,914	4,388
Pacific Exporter [14]	7	19 30	7	22 05	8	9 10	8	9 10	British	Furness, Withy & Co	435 0	60 5	27 3	Vancouver, B. C	Glasgow, Scotland	General	8,589	9,633	6,968
Pacific Cedar	7	20 10	7	23 15	8	10 35	8	13 55	American	Dimon S. S. Corp	399 4	54 7	24 5	Olympia, Wash	New York, N. Y	Lumber	7,200	6,138	4,354
Dean Emery [1]	7	20 40	8	4 06	8	11 30	8	11 30	American	Pan.-Amer. Pet. & Tr. Co	429 3	59 2	26 0	Los Angeles, Calif	Baltimore, Md	Gasoline	9,400	7,709	5,517
Lebore	8	3 45	8	5 25	8	14 45	8	14 45	American	Ore S. S. Corp	549 0	72 2	34 0	Cruz Grande, Chile	New York, N. Y	Iron ore	20,000	14,325	4,635
R. D. Leonard [1]	7	22 45	8	7 03	8	15 00	8	17 35	American	Atlantic Refining Co	275 9	39 9	19 6	Los Angeles, Calif	Philadelphia, Pa	Gasoline	2,495	1,936	1,304
Phobos [1]	8	6 00	8	8 06	8	15 55	8	15 55	Dutch	Anglo-Saxon Pet. Co	440 2	59 3	26 6	San Francisco, Cal	Land's End, Eng	Fuel oil	9,214	7,935	5,065
Sachsen	8	9 10	8	10 03	8	17 45			German	Hamburg-American Line	488 7	58 3	28 4	Vancouver, B. C	Hamburg, Germany	General	8,475	7,935	5,065
Santa Tecla	9	00 14	9	1 14	9	9 05	9	14 55	American	N. O. & S. A. S. S. Co	298 6	40 0	23 4	Iquique, Chile	New Orleans, La	[17]	3,500	2,832	1,803
American	9	00 20	9	2 19	9	9 00	9	10 45	American	Amer.-Hawaiian Line	404 6	53 9	26 0	Seattle, Wash	Boston, Mass	General	5,087	6,777	4,761
Agwistar	9	3 00	9	4 27	9	12 10	9	15 50	American	DuPont de Nemours	370 1	53 1	24 2	Tocopilla, Chile	New Orleans, La	Nitrates	7,100	6,253	4,068
Point Bonita	9	4 10	9	5 15	9	12 20	9	12 20	American	Swayne & Hoyt, Inc	324 0	46 2	21 0	Portland, Oreg	New Orleans, La	General	3,000	3,984	2,617
Cauca [14]	9	7 50	9	9 54	9	18 25			Colombian	National Navigation Co	107 2	22 9	11 0	Buenaventura, Col	Cristobal, C. Z	Coffee, hides	281	238	163
Willzipo	9	13 12	9	13 45	9	20 25	9	20 25	American	Williams S. S. Line	415 1	55 7	28 2	Seattle, Wash	New York, N. Y	[18]	9,000	7,731	5,805
La Perla	9	22 00	10	3 14	10	10 40	11	6 25	American	United Fruit Co	325 1	44 8	21 3	San Francisco, Cal	Cristobal, C. Z	General	865	4,033	2,261
Westmoreland	10	3 45	10	5 05	10	12 20	10	16 05	British	Federal Steam Nav. Co	473 0	60 1	25 6	Bluff, N. Z	Liverpool, England	Frozen, general	5,696	10,423	7,456
Atlantic Sun [1]	10	4 00	10	6 06	10	13 40	10	13 40	American	Sun Oil Co	429 3	59 2	26 0	Los Angeles, Calif	Philadelphia, Pa	Gasoline	9,258	7,568	5,283
David McKelvy [1]	10	8 45	10	9 31	10	17 00	10	17 00	American	Tidewater Oil Co	430 0	59 0	26 0	Los Angeles, Calif	New York, N. Y	Gasoline	8,744	7,629	5,325
Fernmoor [14]	10	8 55	10	10 04	10	17 40	10	17 40	Norwegian	Fern Line	381 4	53 8	25 2	Manila, P. I	East coast, U. S. A	Sugar	7,500	6,291	4,530
Cali	10	9 10	10	10 43	10	18 15	12	15 30	German	Roland Line	216 5	32 9	15 3	Guayaquil, Ecuad'r	Cristobal, C. Z	General	780	1,105	698
Dryden	10	11 00	10	11 38	10	19 20	10	19 20	American	Tampa Interocean Co	434 3	57 7	26 2	Pulupandan, P. I	New Orleans, La	[19]	8,770	7,983	5,893
Martha [14]	10	4 00	10	11 50	10	19 55	12	6 03	Norwegian	Chr. Hannevig	183 2	30 0	11 0	Pto. Armuelles, R.P.	Cristobal, C. Z	Ballast		780	504

[1] Tanker. [14] Motor ship. [15] Sugar, copra, oil, and pineapples. [16] For orders. [17] Nitrates, ore, and beans. [18] Lumber and canned goods. [19] Coconut oil, sugar, and copra.

Poseidon	10	11	15	10	12	22	10	21	20	10	22	40	German	Hamburg-AmericanLine	450.7	57.2	24.8	Antofagasta, Chile	Hamburg,Germany	Nitrates	8,760	7,684	5,234
Lica Maersk	10	21	45	11	2	34	11	11	00	11	11	00	Danish	A. P. Moller	306.2	43.9	20.9	Manila, P. I	North of Hatteras	(20)	3,835	3,361	2,562
Erfurt [1]	11	1	50	11	7	46	11	14	55	11	16	10	German	Roland Line	360.6	51.0	13.6	Champerico, Guat	Bremen, Germany	Ballast			5,038	3,533
Silver Shell [1]	11	2	15	11	9	01	11	16	55	11	18	15	Dutch	Anglo-Saxon Pet. Co	411.0	53.0	26.0	Los Angeles, Calif	United Kingdom	Gasoline	7,563	6,213	4,343
Swan				11	8	45	11	16	55				American	U. S. Navy	187.0			Balboa, C. Z	Cristobal, C. Z				
Suwordenco	11	8	45	11	9	56	11	18	05	11	18	05	American	Transmarine Lines	324.0	46.2	24.2	Aberdeen, Wash	Port Newark, N. J.	Lumber	4,800	3,984	2,612
Sacramento	10	14	20	11	10	05	11	18	30	12	1	05	American	Charles Nelson & Co	380 0	54.2	24.5	Los Angeles, Calif	Baltimore, Md	General	7,000	5,653	4,122
Oregonstar	11	19	10	11	10	57	11	19	10	11	19	10	British	Blue Star Line	426.3	54.1	25.6	Seattle, Wash	Buenos Aires, Arg	Frozen, general	4,150	7,506	5,261

[1] Tanker. [20] Sugar and desiccated coconuts. All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
May 5	Pastores	United Fruit Co	Port Limon, Costa Rica.
May 5	Coppename	United Fruit Co	Puerto Colombia.
May 5	Montana	Huasteca Petroleum Co	Aruba, D. W. I.
May 6	Maravi	United Fruit Co	New York, N. Y.
May 6	Acacia [21]	U. S. Government	Guantanamo, Cuba.
May 6	Teutonia	Hamburg-American Line	Tampico, Mexico.
May 6	Ulua	United Fruit Co	New York via Habana.
May 6	No. 9685 [22]	Pan-American Airways	Tela via wayports.
May 6	No. 9664 [22]	Pan-American Airways	Tela via wayports.
May 6	No. 9775 [22]	Pan-American Airways	Guayaquil via wayports.
May 7	Van Renselaer	Royal Netherlands S. S. Co	Amsterdam via wayports.
May 7	Inapaquina [23]	United Fruit Co	Colon, R. P.
May 7	Anachucuna [23]	United Fruit Co	Colon, R. P.
May 8	Anachucuna [23]	United Fruit Co	Colon R. P.
May 8	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
May 8	Linda S. [24]	A. L. Surgeon	Colon, R. P.
May 8	Ninian	Leyland Line	Liverpool via wayports.
May 8	Zacapa	United Fruit Co	New York via Kingston.
May 8	Colombia No. 28 [22]	Scadta Airplane Co	Barranquilla, Colombia.
May 9	Inapaquina [23]	United Fruit Co	Colon, R. P.
May 10	Atlantida	Stand. Fruit S. S. Co	New Orleans via Habana.
May 10	Coppename	United Fruit Co	Bocas, R. P.
May 10	Suriname	United Fruit Co	New Orleans, La.
May 10	Eugenie D. [25]	R. Feuillebois	Colon, R. P.
May 10	Annetta I. [24]	A. Tagaropulos	Colon, R. P.
May 10	Anachucuna [23]	United Fruit Co	Colon, R. P.
May 10	Queen of Scots [26]	A. J. Drexel	High seas.
May 11	Wanks	Stand. Fruit S. S. Co	San Blas, R. P.
May 11	Van Renselaer	Royal Neth. S. S. Co	Port Limon, Costa Rica.
May 11	Ariguani	Elders & Fyffes Line	Avonmouth via wayports.
May 11	Cartago	United Fruit Co	New Orleans via Habana.
May 11	No. 9685 [22]	Pan-American Airways	Tela via wayports.

* DEPARTURES.

Date.	Vessel.	Line.	For—
May 5	Inapaquina [23]	United Fruit Co	Colon, R. P.
May 5	Saramacca	United Fruit Co	New Orleans, La.
May 5	Wanks	Stand. Fruit S. S. Co.	San Blas, R. P.
May 5	Pastores	United Fruit Co	New York via Habana.
May 6	Heredia	United Fruit Co	NewOrleans and wayports.
May 6	Montana	Huasteca Petroleum Co	Aruba, D. W. I.
May 6	Coppename	United Fruit Co	Port Limon via Bocas.
May 7	Maravi	United Fruit Co	Puerto Colombia.
May 7	Teutonia	Hamburg-American Line	Europe via wayports.
May 8	Van Renselaer	Royal Neth. S. S. Co	Port Limon, Costa Rica.
May 8	Anachucuna [23]	United Fruit Co	Colon, R. P.
May 8	Inapaquina [23]	United Fruit Co	Colon, R. P.
May 8	Linda S. [24]	A. L. Surgeon	Bluefields, Nicaragua.
May 8	Anachucuna [23]	United Fruit Co	Colon, R. P.
May 8	Ulua	United Fruit Co	Port Limon, Costa Rica.
May 9	Colombia No. 28 [22]	Scadta Airplane Co	Barranquilla, Colombia.
May 9	Zacapa	United Fruit Co	New York via wayports.
May 9	No. 9685 [22]	Pan-American Airways	Tela via wayports.
May 9	Ninian	Leyland Line	Liverpool via wayports.
May 10	Inapaquina [23]	United Fruit Co	Colon, R. P.
May 10	Coppename	United Fruit Co	New Orleans, La.
May 10	Eugenie D. [25]	R. Feuillebois	Bluefields and San Andres.
May 10	Annetta I. [24]	A. Tagaropulos	Colon, R. P.
May 10	Anachucuna [23]	United Fruit Co	Colon, R. P.
May 11	Atlantida	Stand. Fruit S. S. Co.	New Orleans via wayports.
May 11	Ariguani	Elders & Fyffes Line	Bristol via Kingston.
May 11	Van Renselaer	Royal Neth. S. S. Co.	Amsterdam via wayports.
May 11	Suriname	United Fruit Co	Port Limon via Bocas.
May 11	No. 9664 [22]	Pan-American Airways	Tela via wayports.

[21] Lighthouse tender. [22] Air-mail carrier. [23] Motor boat. [24] Motor schooner. [25] Schooner. [26] Yacht.

* Other than ships passing through the Canal.

(Continued on page 590; column 2.)

Insurance Business in the Canal Zone, Calendar Year 1928.

Eight insurance companies, all with head offices in the United States, transacted business in the Canal Zone in 1928. All companies licensed for 1927, with the exception of one surety company, renewed their licenses for 1928. A summary of the business follows:

MISCELLANEOUS COMPANIES.

	Premiums received in 1928.	Losses paid in 1928.
Accident	$5,117.24	$121.43
Automobile liability	1,077.92	57.80
Fidelity	648.74	[1]30.00
Fire	4,026.66	
Health	1,341.75	617.45
Liability other than automobile	7,712.97	3,688.26
Vehicle	1,584.88	151.70
Automobile property damage	219.30	
Surety	2,795.79	
Plate glass	19.74	
Totals	24,544.99	4,666.64

Premium tax paid in Canal Zone $368.17.

[1] Represents credit.

LIFE INSURANCE COMPANIES.

	Number.	Amount.
Policies in force, December 31, 1927	911	$2,699,672.00
Policies issued during 1928	118	402,872.00
Totals	1,029	3,015,544.00
Policies lapsed during 1928	73	242,257.00
Policies in force, December 31, 1928	956	2,772,287.00
Losses and claims unpaid, December 31, 1927		
Losses and claims incurred during 1928	3	6,616.00
Totals	3	6,616.00
Losses and claims settled during 1928	3	6,616.00
Losses and claims unpaid on December 31, 1928		
Premiums collected during 1928		105,973.85
Premium tax paid in Canal Zone		1,603.38

The relatively small amount of fire insurance business written is due to the fact that there are few structures in the Canal Zone outside of those owned by the Government of the United States, and none of such property is covered by fire insurance.

"Nosa" Line Adds Vessels to Service.

The New Orleans & South America Line (NOSA Line), operating in the service between the Gulf ports of the United States and the west coast of South America, has announced that it will add three vessels to its service. The newly acquired ships, which are to be known as the *Nosa King*, *Nosa Queen*, and *Nosa Prince*, were formerly owned by the United States Shipping Board, and were built in the yards of the Mobile Shipbuilding Company in 1920. Each vessel is 320 feet long, 46.0 beam, and of 3,545 gross tons. The ships will be reconditioned and provided with limited passenger accommodations before being placed in the service.

The *Nosa King* has already passed through Canal on the way to South America, on April 9, 1929.

Commercial Traffic Through the Panama Canal in April, 1929 by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of April, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for April, 1928 and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal:							
United States	79	402,319	305,008	491,302	304,606	$351,261.34	300,228
East coast of United States to west coast of South America:							
British	12	51,767	42,147	72,751	44,412	41,779.71	10,289
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	2,332
Japanese	1	4,611	4,223	5,838	4,219	3,319.92	.....
Norwegian	1	4,730	4,105	6,583	4,119	3,405.60	.....
Panaman	1	4,897	4,014	6,386	4,067	3,525.84	.....
Swedish	2	2,591	2,293	3,283	2,280	2,866.25	847
United States	15	63,879	52,038	90,803	51,520	51,404.55	19,632
Totals	33	137,147	112,253	192,954	114,593	110,593.12	33,100
Europe to west coast of South America:							
Belgian	1	6,211	4,522	7,130	4,013	4,471.92	.....
British	5	31,762	23,872	39,713	24,835	29,840.00	20,732
Danzig	1	5,927	5,207	8,744	5,026	4,267.44	.....
Dutch	2	12,939	7,343	12,494	7,552	9,178.75	9,186
French	3	11,524	8,984	14,670	8,654	11,230.00	13,563
German	5	24,291	16,949	27,600	16,991	21,186.25	25,609
Italian	2	11,600	9,344	16,902	9,193	11,680.00	2,468
Norwegian	3	9,639	6,979	11,640	6,934	8,723.75	15,938
Yugoslav	2	7,594	5,491	8,942	5,484	5,806.08	5,100
Totals	24	121,487	88,691	147,835	88,682	106,384.19	92,596
East coast of United States to Far East:							
British	4	22,167	17,523	27,782	17,426	21,903.75	30,838
Japanese	7	34,416	29,427	43,511	28,752	36,205.75	48,073
Norwegian	2	6,743	3,805	6,424	3,788	4,756.25	8,452
United States	6	24,654	19,419	29,985	18,526	22,958.94	26,222
Totals	19	87,980	70,174	107,702	68,492	85,824.69	113,585
Europe to west coast Canada:							
British	7	36,972	26,414	42,253	26,439	30,123.61	8,465
Danish	1	5,660	5,233	6,919	5,223	6,541.25	6,170
Dutch	2	13,668	9,950	15,694	9,932	12,437.50	7,532
French	1	4,936	3,385	5,751	3,555	4,231.25	3,545
German	2	10,966	7,458	12,698	7,685	9,322.50	12,193
Italian	1	6,054	5,031	7,061	4,460	6,288.75	1,510
Norwegian	1	5,445	3,031	5,013	3,028	3,788.75	8,388
Swedish	1	4,860	2,781	4,960	3,665	3,476.25	5,231
Totals	16	88,561	63,283	100,349	63,987	76,209.86	53,034
Europe to Australasia:							
British	9	67,046	48,950	79,688	49,464	61,187.50	62,039
French	1	5,364	4,287	7,133	4,335	5,358.75	2,469
Norwegian	1	2,299	1,881	3,214	1,869	2,351.25	4,009
Swedish	1	5,193	3,147	5,223	3,119	3,933.75	1,099
Totals	12	79,902	58,265	95,258	58,787	72,831.25	69,616
Cristobal to west coast South America:							
Colombian	4	1,113	1,058	1,776	1,068	1,303.70	1,133
Dutch	2	1,484	588	1,560	646	735.00	229
German	5	4,232	2,879	5,398	2,974	3,598.75	2,543
Peruvian	1	2,959	1,515	4,617	2,427	1,893.75	110
Totals	12	9,788	6,040	13,351	7,115	7,531.20	4,015

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Europe to west coast United States:							
British	2	9,011	7,338	12,086	7,191	$6,487.92	.....
Danish	1	4,097	3,355	5,722	3,406	2,949.84	.....
Dutch	1	5,065	4,540	7,412	4,235	3,646.80	.....
German	1	6,680	4,909	8,116	4,887	6,136.25	5,265
Norwegian	2	11,122	9,168	14,897	9,146	9,641.71	3,980
Panaman	1	6,650	5,650	8,947	5,651	4,788.00	.....
Swedish	1	6,295	5,189	8,945	6,592	4,532.40	.....
United States	2	13,274	10,909	17,831	10,852	11,080.05	8,346
Totals	11	62,194	51,058	83,956	51,960	49,262.97	17,591
East coast United States to Australasia:							
British	7	34,560	25,688	41,080	25,608	32,110.00	33,583
United States	1	4,881	3,374	5,428	3,374	4,217.50	5,040
Totals	8	39,441	29,062	46,508	28,982	36,327.50	38,623
East coast United States to Philippine Islands:							
British	2	12,126	8,210	13,188	8,025	10,262.50	12,664
Danish	1	2,967	1,920	3,177	1,931	2,400.00	5,250
Norwegian	1	7,075	4,009	6,751	4,113	5,011.25	7,184
United States	1	5,906	5,469	6,959	5,438	6,836.25	8,244
Totals	5	28,074	19,608	30,075	19,507	24,510.00	33,342
Cristobal to west coast Central America							
British	3	2,063	1,900	3,436	1,906	2,353.90	3,022
Norwegian	2	1,110	908	1,587	873	1,135.00	1,946
Totals	5	3,173	2,808	5,023	2,779	3,488.90	4,968
East coast Canada to Australasia:							
British	4	17,912	14,205	21,281	14,227	17,756.25	14,594
Cristobal to west coast United States:							
United States	3	5,924	5,231	8,468	5,080	6,538.75	3,505
South American Intercoastal:							
British	2	5,151	4,181	7,038	4,146	5,226.25	8,633
United States	1	1,765	1,621	2,606	1,612	2,026.25	400
Totals	3	6,916	5,802	9,644	5,758	7,252.50	9,033
Europe to west coast Central America:							
German	1	3,500	2,809	4,611	2,784	3,511.25	1,176
Norwegian	1	1,676	1,403	1,733	968	1,753.75	2,245
Totals	2	5,176	4,212	6,344	3,752	5,265.00	3,421
West Indies to west coast of Canada:							
British	[1]2	2,207	1,239	2,338	1,249	4,158.75	4,109
East coast of Central America to west coast United States:							
United States	2	4,620	4,302	6,988	4,292	5,324.45	1,613
East coast United States to west coast Canada:							
British	1	4,521	3,132	5,080	3,132	3,255.12	.....
United States	1	4,964	3,663	5,856	3,663	4,578.75	7,621
Totals	2	9,485	6,795	10,936	6,795	7,833.87	7,621
Around the world:							
United States	2	17,697	12,500	21,035	12,500	15,625.00	9,483
East coast of United States to west coast of Central America:							
British	1	2,988	2,345	3,786	2,317	2,931.25	4,914
Norwegian	1	1,716	1,490	2,289	1,355	1,862.50	2,997
Totals	2	4,704	3,835	6,075	3,672	4,793.75	7,911
East coast United States to Hawaii:							
United States	2	3,470	3,070	5,294	3,084	3,837.50	5,543

[1] Includes British Cruiser of 5,200 tons displacement.

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Europe to Hawaii:							
Swedish	1	5,661	3,406	5,642	4,320	$4,257.50	7,120
Canadian Intercoastal:							
British	1	4,068	3,306	5,492	3,380	4,132.50	73
East coast Canada to west coast South America:							
British	1	7,648	6,391	11,410	6,711	5,506.56	.....
Central American Intercoastal:							
Mexican	[2]1	.....	.....	.....	.....	613.50	.....
East coast of South America to west coast Canada:							
Norwegian	1	4,092	2,342	3,870	2,327	2,927.50	4,078
East coast South America to Far East:							
Japanese	1	7,292	5,924	9,446	5,919	7,405.00	5,022
Cristobal, C.Z., to Balboa, C.Z.:							
Panaman	1	20	15	20	16	14.40	.....
West Indies to west coast United States:							
British	1	4,118	2,682	4,300	2,881	3,352.50	5,018
West Indies to Australasia:							
British	1	3,682	3,610	4,553	2,892	4,418.40	6,608
West Indies to Far East:							
British	1	5,867	3,468	5,677	3,510	4,335.00	7,000
Foreign Vessels in Ballast—U. S. Intercoastal:							
British	1	9,885	8,727	16,436	9,643	7,117.20	.....
Totals, April, 1929	259	1,190,510	907,312	1,479,562	911,498	1,046,690.90	862,450
Totals, April, 1928	271	1,194,004	912,709	1,500,455	916,718	1,031,935.91	742,388
Totals, April, 1927	226	1,109,275	864,865	1,417,042	862,833	960,971.53	697,329

[2] Cruiser of 1,227 tons displacement.

PACIFIC TO ATLANTIC.

United States Intercoastal:							
United States	72	393,463	300,527	485,087	299,877	$375,658.70	542,819
West coast Canada to Europe:							
Belgian	1	3,773	3,104	4,875	3,701	3,830.00	6,270
British	25	127,419	90,929	147,156	91,167	113,661.25	190,518
Danish	1	5,588	4,473	7,014	4,470	5,591.25	9,972
Dutch	2	13,715	10,959	17,772	10,981	13,698.75	17,317
French	2	9,739	7,446	12,132	7,452	9,307.50	13,391
German	2	13,456	8,426	14,388	8,606	10,532.50	17,095
Italian	1	6,025	5,056	7,098	4,498	6,320.00	9,034
Japanese	2	8,857	8,777	11,730	8,526	10,628.40	15,181
Norwegian	2	9,333	7,452	11,914	7,448	9,315.00	14,245
Swedish	2	10,684	7,554	12,422	9,243	9,442.50	16,937
United States	1	5,100	3,732	5,819	3,643	4,665.00	7,764
Totals	41	213,689	157,908	252,320	159,735	197,042.15	317,724
West coast South America to east coast of United States:							
British	12	51,399	39,920	66,496	41,169	49,900.00	77,517
Chilean	2	7,768	6,066	10,874	6,233	7,582.50	9,666
Danish	1	4,519	3,595	5,886	3,658	4,493.75	8,800
German	2	5,146	4,188	6,155	3,742	5,188.90	6,476
Japanese	1	4,665	4,268	5,831	4,227	5,335.00	8,200
Norwegian	3	10,688	8,314	13,441	8,284	10,392.50	22,290
Panaman	1	4,897	4,014	6,386	4,067	5,017.50	8,875
Swedish	3	10,430	8,793	32,276	9,816	10,991.25	44,369
United States	15	66,857	54,727	93,314	54,119	67,509.65	146,840
Totals	40	166,369	97,885	240,659	98,315	166,410.75	333,033
West coast South America to Europe:							
British	6	33,742	27,589	45,199	27,845	34,486.25	38,864
Danish	1	4,623	2,989	4,750	3,006	3,736.25	7,480
Danzig	1	5,928	5,202	8,744	5,026	6,502.50	11,300
Dutch	3	19,821	11,148	19,762	11,368	13,935.00	29,506
French	2	8,613	7,426	11,694	7,332	9,282.50	14,787
German	3	12,944	10,266	16,464	10,166	12,832.50	21,851
Greek	3	11,930	8,416	13,847	8,533	10,520.00	21,201
Italian	2	13,336	8,598	17,110	10,206	10,747.50	9,309
United States	1	2,628	2,009	3,286	1,998	2,511.25	4,916
Yugoslav	2	7,667	5,957	9,313	5,915	7,446.25	14,300
Totals	24	121,232	89,600	150,169	91,395	112,000.00	173,514

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast United States to Europe:							
British	7	28,366	22,948	38,251	23,150	$28,685.00	47,176
Danish	1	5,286	4,207	6,636	4,236	5,258.75	9,491
Danzig	1	6,338	5,236	8,956	5,041	6,545.00	11,219
Italian	2	10,456	8,819	13,168	8,343	11,023.75	12,032
Norwegian	5	24,846	20,305	33,790	20,153	25,381.25	46,710
Swedish	1	5,337	2,861	5,210	3,747	3,576.25	5,575
United States	2	9,282	7,172	11,554	7,141	8,965.00	13,720
Totals	19	89,911	71,548	117,565	71,811	89,435.00	145,923
West coast South America to Cristobal, C. Z.:							
Colombian	4	1,074	1,007	1,750	1,011	1,258.75	1,200
Dutch	2	1,484	588	1,560	646	735.00	920
German	5	4,232	2,879	5,398	2,973	3,598.75	3,963
Peruvian	2	5,364	2,504	7,922	3,941	3,130.00	3,989
Swedish	1	1,078	986	1,683	1,226	1,232.50	867
Totals	14	13,232	7,964	13,313	9,797	9,955.00	10,939
Philippines to east coast of United States:							
Danish	2	6,775	4,450	7,397	4,480	5,562.50	12,000
Japanese	4	19,339	16,663	25,247	16,303	20,714.30	26,659
Norwegian	2	8,608	4,741	8,111	4,856	5,926.25	13,750
United States	5	25,679	22,049	31,384	21,813	27,561.25	40,779
Totals	13	60,401	47,933	72,139	47,452	59,764.30	93,188
Australasia to Europe:							
British	10	77,664	54,496	90,621	56,697	68,120.00	64,235
French	1	5,162	4,357	6,889	4,446	5,446.25	3,270
Totals	11	82,826	58,853	97,510	61,143	73,566.25	67,505
West coast Central America to West Indies:							
British	2	1,328	1,252	2,308	1,256	1,565.00	1,462
Colombian	2	1,813	1,501	2,460	1,559	1,310.82	.....
Norwegian	3	2,826	2,398	3,876	2,228	2,204.65	934
Totals	7	5,967	5,151	8,644	5,043	5,080.47	2,396
West coast Canada to East coast United States:							
Danish	2	8,024	6,452	9,296	6,553	8,065.00	12,253
United States	3	10,753	8,304	13,723	8,442	10,380.00	13,826
Totals	5	1,877	14,756	23,019	14,995	18,445.00	26,079
West coast United States to east coast Central America:							
Danish	1	1,716	1,336	2,245	1,348	1,670.00	2,433
United States	4	8,995	8,366	13,482	8,211	10,404.45	3,066
Totals	5	10,711	9,702	15,727	9,559	12,074.45	5,499
Australasia to east coast of United States:							
British	1	4,663	2,588	4,388	2,570	3,235.00	7,550
Norwegian	1	6,155	4,715	8,224	4,882	5,893.75	8,166
United States	2	15,597	13,554	19,125	13,303	16,942.50	19,250
Totals	4	26,415	20,857	31,737	20,755	26,071.25	34,966
West coast of South America to east coast Canada:							
British	3	19,393	16,290	29,929	17,362	20,362.25	40,800
Danzig	1	6,063	5,196	8,932	5,002	6,495.00	11,500
Totals	4	25,456	21,486	38,861	22,364	26,857.25	52,300
West coast South America to West Indies:							
British	3	9,043	7,544	12,620	7,516	6,460.64	.....
Canadian Intercoastal:							
British	3	12,139	9,656	16,026	9,986	12,070.00	18,885

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West coast Central America to Europe:							
German	2	3,669	3,122	5,274	3,099	$3,901.75	3,905
Norwegian	1	1,134	1,022	1,749	1,019	1,277.50	1,649
Totals	3	4,803	4,144	7,023	4,118	5,179.25	5,554
Australasia to east coast of Canada:							
British	2	8,334	6,609	10,941	6,683	8,261.25	7,530
West coast of United States to Cristobal, C. Z.:							
Panaman	1	2,606	1,384	2,461	1,384	1,730.00	1,258
United States	1	1,549	1,167	1,974	1,161	1,458.75	1,516
Totals	2	4,155	2,551	4,435	2,545	3,188.75	2,774
West coast United States to West Indies:							
British	1	4,062	3,579	5,880	3,531	4,473.75	8,303
West coast Canada to West Indies:							
Norwegian	1	3,489	2,504	4,265	2,501	3,130.00	4,797
West coast Central America to east coast South America:							
United States	1	950	923	1,768	981	1,140.00	240
Balboa, C. Z. to east coast of United States:							
United States	1	263	243	578	251	189.36	
Hawaii to east coast United States:							
United States	1	1,740	1,542	2,647	1,542	1,927.50	3,255
Around the world:							
British	1	14,476	8,136	21,861	12,292	10,170.00	
Foreign Vessels in Ballast—U. S. Intercoastal:							
Norwegian	1	5,460	4,398	7,350	4,397	3,931.20	
Far East to West Indies:							
Spanish	[1]					1,691.50	
Balboa to Cristobal:							
United States	1	303	296	659	296	222.00	
Totals, April, 1929	281	1,297,666	992,295	1,647,803	1,005,880	1,234,396.37	1,857,218
Totals, April, 1928	260	1,190,487	926,312	1,511,839	929,258	1,155,671.91	1,731,496
Totals, April, 1927	238	1,115,225	885,495	1,435,496	885,153	1,104,235.39	1,732,478

[1] Training ships of 3,383 tons displacement.

Notice to Mariners.

West Coast Colombia, Buenaventura River.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *May 6, 1929.*

No. 535.

The following is quoted from Notice to Mariners, Washington, D. C., April 27, 1929:

Colombia, West Coast, Buenaventura River, Information concerning Light Buoys. The master of the German steamer *Paraguay* reports as follows concerning light buoys in Buenaventura River:

(*a*) The light buoy about 1⅞ miles south from Vigia de San Pablo shows flashing red. Approximate position: 3° 47′ N., 77° 16′ W.

(*b*) The light buoy marking the wreck about 2 miles 54° from Soldado Point Light Buoy shows flashing red. Approximate position: 3° 49′ 30″ N., 77° 10′ 00″ W.

(*c*) A light buoy showing a flashing red light has been established to mark a wreck in approximately latitude 3° 50′ 39″ N., longitude 77° 7′ 27″ W.

Colombia, West Coast, Buenaventura River, Wreck, Light Buoys Established, Further Information. The master of the German steamer *Paraguay* reports that the wreck of the *Tritonia*, sunk about 1,300 yards, 206° from the pierhead at Buenaventura is marked by two light buoys, each showing a flashing red light. Approximate position: 3° 52′ 30″ N., 77° 6′ 00″ W.

H. BURGESS,
Governor.

United States Intercoastal Traffic by Commodities for April, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for April, 1929, and the totals for April, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Agricultural implements	1,514		1,514
Alfalfa meal		1,412	1,412
Ammonia	140		140
Ammunition	62		62
Asbestos	582		582
Asphalt	123	33	156
Automobiles	3,038	169	3,207
Automobile accessories	467		467
Bark, cascara		7	7
Barley		56	56
Beans	64	2,979	3,043
Bones and bonemeal	116		116
Borax	100	1,175	1,275
Bricks	186		186
Burlap	162	117	279
Calcium carbide	145		145
Camphor		73	73
Canned goods:			
Fish	720	6,125	6,845
Fruit	207	18,474	18,681
Meat	50	593	643
Milk	17	743	760
Soup	1,539		1,539
Vegetables	697	4,550	5,247
Miscellaneous	1,801	2,088	3,889
Carbon black	324		324
Celite filtercel		946	946
Cement	850	155	1,005
Charcoal	1,166		1,166
Chemicals	1,389	567	1,956
China and fire clay	25		25
Coal	6,000		6,000
Cocoa	105	4	109
Coconuts		649	649
Coffee	190	140	330
Coke	2,013		2,013
Cold storage:			
Butter		23	23
Lard	300		300
Other	95		95
Confectionery	598		598
Cork	79		79
Cotton	115	3,448	3,563
Drugs	769		769
Dyes	32	21	53
Earthenware	146		146
Explosives	56	22	78
Fertilizer	444		444
Flour	130	6,581	6,711
Fruit:			
Dried		8,147	8,147
Fresh	182	36	218
Fuller's earth	467		467
Furniture	506		506
General	64,951	13,477	78,428
Glass and glassware	1,521	325	1,846
Granite	39		39
Guano	100		100
Hair	38	21	59
Hardwoods	2,317	643	2,960
Hay		85	85
Hemp	366	1,536	1,902
Honey		109	109
Infusorial earth		25	25
Ink	33		33

Commodity.	Atlantic to Pacific	Pacific to Atlantic.	Totals.
Jute	136	154	290
Lineoleum	1,030	.....	1,030
Liquors	199	.....	199
Lumber	4,457	192,217	196,674
Malt	121	.....	121
Manufactured goods:			
Iron and steel	125,827	1,149	126,976
Machinery	4,006	942	4,948
Railroad material	5,273	11	5,284
Tinplate	12,688	.....	12,688
Textiles	2,953	347	3,300
Miscellaneous	6,657	1,067	7,724
Matches	162	12	174
Metals:			
Antimony	.....	878	878
Copper	74	3,746	3,820
Iron	3,360	83	3,443
Lead	.....	455	455
Scrap	527	408	935
Zinc	.....	112	112
Milk, powdered	.....	446	446
Molasses	73	.....	73
Musical instruments	30	.....	30
Nuts	20	.....	20
Oils:			
Coconut	.....	25	25
Cottonseed	44	.....	44
Crude	.....	10,400	10,400
Gas oil, fuel oil	.....	10,160	10,160
Gasoline, benzine, naphtha	354	188,213	188,567
Kerosene	.....	10,240	10,240
Linseed	61	.....	61
Lubricating and greases	2,904	27	2,931
Olive	25	.....	25
Vegetable	931	187	1,118
Wood	21	.....	21
Other	.....	13	13
Ores:			
Antimony	.....	100	100
Copper	75	1,395	1,470
Iron	.....	29	29
Magnesite	50	100	150
Manganese	23	.....	23
Tin	.....	120	120
Other	1,600	30	1,630
Paint and varnish	329	284	613
Paper	6,239	7,716	13,955
Paper pulp	71	2,742	2,813
Peanuts	301	474	775
Phosphates	61	.....	61
Plaster	18	.....	18
Porcelain	121	704	825
Rags	.....	1,091	1,091
Rice	220	.....	220
Rope	72	258	330
Rosin	402	.....	402
Rubber:			
Manufactured	1,440	311	1,751
Raw	60	.....	60
Scrap	.....	83	83
Salt	108	.....	108
Seeds:			
Hemp	.....	22	22
Other	.....	124	124
Shells	1,161	28	1,189
Silk	.....	659	659
Skins and hides	.....	2,517	2,517
Slate	42	.....	42
Soap	2,339	232	2,571
Soda	492	.....	492
Soda ash	768	.....	768
Soda, bicarbonate	224	.....	224
Soda, caustic	760	.....	760
Starch	27	.....	27
Sugar	3,520	21,441	24,961
Sulphur	5,577	.....	5,577
Syrup	220	.....	220
Talc	.....	159	159
Tallow	27	326	353
Tar	116	.....	116
Tea	7	44	51
Tobacco	1,535	86	1,621
Toys	.....	27	27
Turpentine	40	.....	40
Vegetables	.....	37	37

Commodity.	Atlantic to Pacific	Pacific to Atlantic.	Totals.
Waste	12	.....	12
Wax	180	151	331
Wheat	.....	570	570
Wool	25	2,423	2,448
Totals, April, 1929	297,271	541,129	838,400
Totals, April, 1928	232,777	594,882	827,659
Totals, April, 1927	258,973	691,003	949,976

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending May 4, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Colombo	Italian Line	.....	April 28	.....	¾
Nosa Chief	N. O. & S. A. S. S. Co	.....	April 28	.....	176
Calamares	United Fruit Co	April 28	April 28	14	187
Parthenia	Donaldson Bros	April 28	April 29	(1)	266
Orduna	Pacific Steam Nav. Co	April 28	April 29	156	84
Orazio	Italian Line	April 28	April 29	35	947
Cuba	French Line	April 28	April 30	338	752
Magallanes	Spanish Line	April 28	May 2	176	478½
Ebro	Pacific Steam Nav. Co	April 29	April 29	11	134
Durazzo	Hamburg-American Line	.....	April 29	.....	954
Ancon	Panama R. R. S. S. Line	.....	April 29	.....	2,831
Parismina	United Fruit Co	.....	April 29	.....	440
Acajutla	Pacific Steam Nav. Co	.....	April 29	.....	1,112
Manizales	North German Lloyd	.....	April 29	.....	319
Wanks	Stand. Fruit S. S. Co	.....	April 29	.....	3
Grandon	North German Lloyd	April 29	April 30	230	154
Illinois	French Line	April 29	April 30	479	6
Lochmonar	Royal Mail S. P. Co	April 30	April 30	(1)	232
Almagro	Pacific Steam Nav. Co	April 30	April 30	82	39
Boskoop	Royal Neth. S. S. Co	April 30	April 30	120	3
Linda S	R. Feuillebois	April 30	April 30	(1)	31¾
Finn	Colombian Mar. Co	April 30	April 30	88	(2)
Saramacca	United Fruit Co	April 30	May 1	759	126
El Salvador	Panama Mail S. S. Co	April 30	May 1	652	339
Pastores	United Fruit Co	April 30	May 1	390	526
Talisman	W. Wilhelmsen	May 1	May 1	150	(2)
Bohemian Club	Atlantic Refining Co	May 1	May 2	794	(2)
Coppename	United Fruit Co	May 1	May 2	900	60
Ecuador	Panama Mail S. S. Co	May 1	May 2	1,201	477
Bodegraven	Royal Neth. S. S. Co	May 1	May 2	385	178
La Paz	Pacific Steam Nav. Co	May 1	May 2	436	265
Custodian	Leyland Line	May 1	May 2	633	(2)
Managui	United Fruit Co	May 1	May 4	515	18
Lochgoil	Pacific Steam Nav. Co	May 2	May 2	30	566
Antillian	Leyland Line	May 2	May 3	(1)	151
Salvador	Pacific Steam Nav. Co	May 2	.....	487	.....
Georgie	French Line	May 2	May 2	35	77
Swiftwind	C. D. Mallory & Co	May 2	May 3	11,740	(2)
Sixaola	United Fruit Co	May 2	May 3	643	543
Saale	North German Lloyd	May 2	May 3	(1)	570
Wasgenwald	Hamburg-American Line	May 3	May 4	72	307
Heinrich Arp	Colombian Mar. Co	May 3	May 4	144	(2)
Canadian Victor	Can. Nat. Steamships	May 3	May 3	24	(2)
Amapala	Stand. Fruit S. S. Co	May 3	May 4	204	585
Esparta	United Fruit Co	May 3	.....	982	.....
Benjamin Franklin	Norway-Pacific Line	May 3	May 4	(1)	270
Albert Voegler	Hamburg-American Line	May 4	May 4	158	(2)
Taketoyo Maru	Nippon Yusen Kaisha	May 4	.....	321	.....
Uribe	Estrada G. Hermanos	May 4	.....	720	.....
Wanks	Stand. Fruit S. S. Co	May 4	.....	161	.....
Leme	Nav. Libera-Triestina	May 4	.....	225	.....
Saramacca	United Fruit Co	May 4	.....	42	.....
Heredia	United Fruit Co	May 4	.....	364	.....
West Camargo	McCormick Line	May 4	May 4	150	(2)

(1) No cargo discharged. (2) No cargo laded.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *May 16, 1929.*

No. 537.

The following was received by the Hydrographic Office from the Lighthouse Subdivision, The Panama Canal:

MANZANILLO BAY.

The red spar buoy marking the shoal on continuation of Coco Solo Mole has been moved from the position shown on Hydrographic Chart No. 5439 about 100 feet, 251 degrees true, which places it on the north side of a 16-foot spot in 30 feet of water.

(Signed) EDW. F. BRAMIN,
Assistant Superintendent of Lighthouses.

H. BURGESS,
Governor.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2	$8.00	$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds	11.00	14.00

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessel furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessels to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of the tariff, and for handling lines in accordance with Item 4 of the tariff.

Ships' Chandlery Supplies.

Panama Canal storehouses stock a complete line of ships' chandlery supplies available for sale to shipping at cost prices plus 25 per cent surcharge, which surcharge includes freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 579.

PORT OF BALBOA.

* ARRIVALS.

Date.	Vessel.	Line.	From—
May 6	Mina Brea	Imperial Oil Co	Los Angeles, Calif.
May 7	Frost [27]	West India Oil Co	Talara, Peru.
May 8	Dos Hermanos [28]	A. Valdez	Bayano River, R. P.
May 8	Dixie [28]	Pacific Fruit Co	Bayano River, R. P.
May 8	Sambu [29]	Hans Elliot	El Real, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
May 7	Mina Brea	Imperial Oil Co	Talara, Peru.
May 8	Frost [27]	West India Oil Co	Acajutla, Salvador.
May 8	Dos Hermanos [29]	A. Valdez	Panama Bay, R. P.
May 8	Dixie [28]	Pacific Fruit Co	Panama Bay, R. P.
May 8	Sambu [29]	Han Elliot	Panama Bay, R. P.
May 11	Epoca [27]	Grace Line	Talara, Peru.

[27] Motor ship. [28] Motor schooner and barge. [29] Motor schooner. * Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., May 22, 1929. No. 42.

Canal Traffic During the First Fifteen Days of May.

During the first 15 days of May, 251 commercial vessels and 5 small launches transited the Canal. Tolls on commercial vessels aggregated $1,085,946.86, and on the launches $42.30, or a total tolls collection of $1,085,989.16

The daily average of transits of commercial vessels was 16.73 and the average tolls collection $72,396.46, as compared with an average of 19.00 transits and $79,297.14 in tolls for the first 15 days of April. The average amount of tolls paid by each of the commercial transits was $4,326.48, as compared with $4,173.53 for the first 15 days of April. In point of number of transits, commercial traffic for the first 15 days of May was the lightest since the first half period of September, 1928, when 232 ships were passed through, while the tolls collected were the smallest since October, 1928, when $1,031,136.02 was collected for the first 15 days of that month.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 10½ months of the current fiscal year, with the daily averages of transits and tolls:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January	603	2,502,815.12	19.45	80,735.97
February	522	2,211,961.20	18.64	78,998.62
March	536	2,343,865.55	17.29	75,608.57
April	540	2,281,087.27	18.00	76,036.24
May (first 15 days)	251	1,085,946.86	16.73	72,396.46
Totals, first 10½ months of fiscal year, 1929	5,637	23,788,971.23	17.67	74,573.57
Totals, first 10½ months of fiscal year, 1928	5,715	23,841,227.19	17.86	74,503.83
Totals, first 10½ months of fiscal year, 1927	4,776	21,162,839.45	14.97	66,341.19

As compared with the first 10½ months of the fiscal year 1928, the corresponding period this year has had 78 fewer transits and $52,255.96 less tolls.

Notice to Mariners.

THE PANAMA CANAL EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *May 20, 1929.*

No. 539.

The following message was received by the Hydrographic Office through the Balboa Radio:

U. S. S. *Cleveland.* Little Corn Island Light not burning at 10.00 p. m. on May 19. Approximate position: 12° 17′ 50″ N., 82° 58′ 40″ W.

H. BURGESS,
Governor.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 18, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Martha [2]	10	19.55	12	6.03	12	13.57	13	19.24	Norwegian	H. C. Stevenson	183 0	30.1	11.6	Cristobal, C. Z	Pto. Armuelles, R.P.	General	286	780	504
Cid	11	1.25	12	6.05	12	13.57	12	15.15	British	Pacific Steam Nav. Co	264 8	41.2	16 6	New York, N. Y.	Pimental, Peru	General	927½	2,746	1,626
Dagrun	11	20.25	12	6.15	12	12.55	12	14.05	American	American Trading Co	381.0	54 0	16 0	New York, N. Y.	Los Angeles, Calif.	Ballast		6,503	4,873
Castletown	11	21.00	12	6.45	12	14.45	12	16.40	American	Charles Nelson & Co	321.7	50.0	16.0	Baltimore, Md	Los Angeles, Calif.	Pipe, general	2,520	3,872	2,568
Javanese Prince [2]	12	00.55	12	7.30	12	15.41	12	16.40	British	Prince Line, Ltd.	441.6	60 6	22.0	New York, N. Y.	Yokohama, Japan	General	4,361	9,240	6,145
Sunbeam [1]	12	1.47	12	9.35	12	16.45	12	17.45	American	Sun Oil Co	429.3	59 2	19 11	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,709	5,562
Maimoa	12	5.47	12	10.35	12	17.36	12	18.38	British	Shaw, Savill & Albion	477.7	62.9	27 2	Liverpool, England	Dunedin, N. Z.	General	4,964	11,053	7,895
Charles H. Cramp	12	7.20	12	12.05	12	19.03	12	23.32	American	Isthmian S. S. Lines	404.0	53.9	28 0	Baltimore, Md	Seattle, Wash.	Steel, general	8,451	6,755	4,750
Pacific Redwood	12	11.15	12	13.05	12	20.20	12	21.40	American	Dimon S. S. Corp	409 5	54 2	19.0	New York, N. Y.	Seattle, Wash.	General	5,160	6,537	4,841
Flint No. 2	12	12.15	12	13.40	12	21.32	12	23.00	Norwegian	Canadian Transp. Co	419 5	54 3	24.0	Palo Alto, Cuba	Vancouver, B. C.	Sugar	5,954	6,170	4,439
Cali	10	18.15	12	15.30	12	22.32	13	00.24	German	Roland Line	216.5	32 9	12.8	Cristobal, C. Z	Guayaquil, Ecuad'r	General	360	1,105	698
Canadian Transporter	12	4.05	12	15.40	12	22.25	12	23.38	British	Can. Nat. Steamships	400 0	52.0	22.3	Louisburg, N. S.	Bluff, N. Z.	General	4,978	6,228	4,491
Tacoma Star	12	14.05	12	16.25	12	23.32	13	00.45	British	Blue Star Line	450.0	58.0	19.0	Barry, England	Vancouver, B. C.	Ballast			
Vaba	12	18.30	12	18.45	13	2.06	13	3.15	American	Atl.-Or. Frankline, Ltd.	390 0	54 2	17.0	New Orleans, La.	Los Angeles, Calif.	Ballast		6,205	4,284
Corinthic	12	1.20	13	6.05	13	13.52	13	15.30	British	Shaw, Savill & Albion	500 3	63 3	29.10	London, England	Auckland, N. Z.	General	8,080	12,821	9,507
Lemuel Burrows	12	14.30	13	6.10	13	16.50	13	17.53	American	Blanchard Lumber Co	437 0	63 0	19 0	Boston, Mass	Los Angeles, Calif.	Ballast		9,105	6,004
El Oso [1]	12	23.05	13	7.10	13	17.45	13	19.24	British	Anglo-Saxon Pet. Co	440 0	57 6	20.6	Hamburg, Germany	Los Angeles, Calif.	Ballast		7,478	5,040
S-11 [3]			13	8.05	13	16.46			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z				
Salvador	2	10.25	13	8.45	13	18.55	13	20.15	British	Pacific Steam Nav. Co	215.0	33.5	17.3	Cristobal, C. Z	Champerico, Guat.	General	1,051	1,270	735
Standard Arrow [1]	13	1.05	13	9.45	13	18.53	13	20.15	American	Standard Transp. Co	467.6	62.7	20 0	Boston, Mass	Los Angeles, Calif.	Ballast		9,698	6,783
Surrey	13	6.00	13	10.40	13	20.34	13	21.31	British	Federal Steam Nav. Co.	450.0	63.0	27.6	London, England	N. Plymouth, N. Z.	General	7,749	10,592	7,707
Galveston	13	10.15	13	14.10	13	21.30			American	Roosevelt S. S. Co., S. B.	411.5	55.0	19.0	New York, N. Y.	Freemantle, Aust'la	General	2,046	7,327	5,203
Wentworth	14	5.00	14	6.25	14	14.34	14	17.20	British	W. H. Renwick & Co.	400.0	52.0	23.0	Swansea, England	Puntarenas, C. R.	Patent fuel	5,500	5,721	4,058
Norway Maru	14	9.45	14	10.20	14	18.21	15	00.54	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	25.0	Savannah, Ga	Yokohama, Japan	General, etc	6,404	6,215	4,661
John Bakke [2]	13	22.35	14	11.00	14	19.30	15	2.08	Norwegian	Scand.-So. Pacific Co	391.0	54.7	24.0	Oslo, Norway	Corral, Chile	General, cement	7,355	6,822	5,035
Atago Maru [2]	14	4.40	14	11.10	14	20.18	14	21.15	Japanese	Nippon Yusen Kaisha	440.0	57.0	27.1	Baltimore, Md	Kobe, Japan	(4)	7,781	8,158	5,676
Saint Jean	14	6.40	14	12.10	14	21 19	14	22.35	French	French Line	415.0	50.3	20.4	Havre, France	Talcahuano, Chile	General	2,727	5,849	4,101
Jefferson Myers	14	13.18	14	13.35	14	22.15	14	23.58	American	Quaker Line	440.0	56.0	19 0	Norfolk, Va	Seattle, Wash.	Steel, general	3,841	8,300	6,020
Pareora	14	14.15	14	14.40	15	16.56	15	18.25	British	Federal Steam Nav. Co	479 0	62.0	24.6	Halifax, N. S	Sydney, Australia	General	6,543	9,458	6,867
Point Montara	14	15.10	14	15.30	14	23.14	15	00.31	American	Gulf Pacific Line	324.0	46.2	21.0	Tampa, Fla	Vancouver, B. C.	General	4,299	3,984	2,612
Colombia	14	4.30	15	6.12	15	13.50	15	23.30	American	Panama Mail S. S. Co	380.0	48.0	23.3	New York, N. Y.	San Francisco, Cal.	General	2,400	6,015	4,281
Chas. R. McCormick	14	22.50	15	6.15	15	18.00	15	19.17	American	McCormick S. S. Co.	401.0	53.0	21.0	New York, N. Y.	Seattle, Wash.	General, steel	5,200	7,082	5,167

[1] Tanker. [2] Motor ship. [3] Submarine. [4] Ammonia, tinplate, and phosphates.

Canadolite [7] [8]	15	00.58	15	7.35	15	18.53	15	23.22	British	Imperial Oil Co	510.0	68.2	23.0	Montreal, Canada	Talara, Peru	Ballast		11,556	6,772
Lowther Castle	15	2.20	15	7.30	15	19.40	15	21.00	British	Barber S. S. Line	400.0	51.6	24.0	Baltimore, Md	Shanghai, China	General	4,490	5,800	4,340
Yoseric	15	2.12	15	8.35	15	20.30	15	22.05	British	Texas Gulf Sulphur Co	400.0	52.0	25.0	Galveston, Tex	Fremantle, Aust'lia	Sulphur	6,900	5,786	4,092
Nevadan	16	4.15	15	9.55	15	21.10	15	22.20	American	Amer.-Hawaiian Line	460.0	58.0	22.0	Boston, Mass	Seattle, Wash	General	3,504	6,829	4,627
Edward Luckenbach	15	5.45	15	11.20	15	22.05	15	23.00	American	Luckenbach Line	436.6	57.0	24.6	New York, N. Y.	Seattle, Wash	General	6,151	8,543	6,427
Quebec City	15	16.35	15	17.40	16	2.00	16	3.08	British	Texas Oil Co	400.5	54.3	25.6	Pt. Arthur, Tex	Shanghai, China	Case oil	7,800	7,004	5,406
Canadian Commander	15	18.15	15	18.30	16	2.52	16	4.20	British	Can. Nat. Steamships	400.0	52.0	20.2	Halifax, N. S	Adelaide, Australia	General	3,063	5,914	4,195
Gen. Wm. M. Graham [5]			15	8.15	15	16.56			American	U. S. Army	156.0	32.0		Cristobal, C. Z	Balboa, C. Z				
Ballena	14	22.25	16	6.15	16	13.55	18	17.45	British	Pacific Steam Nav. Co	400.0	52.0	21.3	Glasgow-England	Magallanes, Chile	General	2,469½	5,816	4,113
Alkmaar	15	7.30	16	6.05	16	18.07	17	1.49	Dutch	Royal Neth. S. S. Co	447.0	62.9	20.3	Hamburg,Germany	Corral, Chile	General	4,433	9,505	6,644
Mary Ellen O'Neil [1] [2]	16	2.25	16	7.40	16	20.25	16	21.50	American	The Texas S. S. Co	509.7	70.3	20.0	Baltimore, Md	Los Angeles, Calif	Ballast		12,514	8,427
Georgios	16	2.00	16	8.55	16	21.24	16	22.55	Greek	S. Livanos & Co	360.0	52.0	22.3	Genoa, Italy	Antofagasta, Chile	Coke and coal	5,400	4,776	3,433
Glendoyle	16	7.15	16	9.05	16	21.33	17	3.52	American	Hammond Lumber Co	289.0	44.1	17.11	New York, N. Y.	Los Angeles, Calif	Sugar	3,035	2,940	2,023
Santa Barbara [4]	16	3.20	16	9.58	16	19.30	17	1.49	American	Grace Line	456.0	64.0	23.0	New York, N. Y.	Talcahuano, Chile	General	2,872	10,687	6,633
Steelore	16	2.45	16	11.12	16	22.20	16	23.36	American	Ore S. S. Corp	550.3	72.2	22.0	Baltimore, Md	Cruz Grande, Chile	Ballast		15,551	4,297
Sabotawan	16	9.30	16	12.00	17	00.16	17	1.49	American	Redwood Line	386.8	52.2	21.0	New Orleans, La	San Francisco, Cal.	General	4,792	5,708	4,138
City of Mandalay	16	10.30	16	13.30	16	23.31	17	00.46	British	Ellerman Lines, Ltd	458.0	58.0	27.2	Louisburg, N. S	Shanghai, China	General	7,994	8,855	6,889
Bethore	16	1.10	17	6.35	17	17.18	17	18.30	American	Ore S. S. Corp	550.0	72.0	20.3	Norfolk, Va	Cruz Grande, Chile	Ballast		15,476	4,354
California	17	5.40	17	7.40	17	14.33	18	00.04	American	Panama-Pacific Line	574.4	80.3	27.0	New York, N. Y.	San Francisco, Cal.	General	4,520	24,506	17,565
Parrakoola [2]	16	18.35	17	7.40	17	18.15	17	23.00	Swedish	Transatlantic S. S. Co	448.0	57.0	25.0	Gavle, Sweden	Melbourne, Aus'lia.	Lumber, general	6,992	8,279	6,190
Emergency Aid	16	19.50	17	8.35	17	19.10	17	20.45	American	Pac.-Argentine Co., S. B.	400.7	54.2	25.0	Freeport, Tex	San Francisco, Cal.	General	6,815	6,534	4,742
Franklin K. Lane [1]	17	6.00	17	10.05	17	20.14	17	21.30	American	Huasteca Petroleum Co	435.0	56.2	16.0	New York, N. Y.	Los Angeles, Calif	Ballast		7,405	5,131
President Harrison	17	6.40	17	10.18	17	21.05	18	2.48	American	Dollar Line	502.1	62.2	26.0	New York, N. Y.	San Francisco, Cal.	General	4,825	12,618	9,251
Zenon	16	17.20	17	11.10	17	23.30	18	00.27	French	French Line	425.0	55.0	20.8	Havre, France	Vancouver, B. C.	General	3,250	6,982	4,834
Manzales	16	18.05	17	11.30	17	19.24	17	20.45	German	North German Lloyd	216.0	32.0	11.7	Cristobal, C. Z	Buenaventura, Col.	Ballast		1,132	741
Incalite [1]	17	00.35	17	11.30	17	22.12			British	Imperial Oil Co	350.0	48.5	16.0	Cherbourg, France	Talara, Peru	Ballast		4,447	3,183
Herman Frasch	17	7.50	17	12.50	17	22.20	17	23.40	American	Texas Gulf Sulphur Co	356.0	51.6	25.6	Galveston, Tex	Ocean Falls, B. C.	Crude sulphur	6,000	5,349	2,950
Sunelseco	17	9.05	17	12.40	17	23.25	18	00.27	American	Transmarine Line	324.0	46.2	20.3	New York, N. Y.	San Francisco, Cal.	General	2,092	3,984	2,612
Mississipi	16	6.20	17	13.40	18	00.31			French	French Line	422.0	52.6	19.3	Havre, France	Talcahuano, Chile	General	629	7,156	4,984
Sutermeo	17	14.40	17	14.55	18	00.27	18	1.46	American	Transmarine Line	324.0	46.0	20.0	Newark, N. J	San Francisco, Cal.	General	1,825	3,984	2,628
Drechtdijk [2]	17	6.20	17	15.40	18	1.28	18	2.30	Dutch	Holland-American Line	485.0	62.0	21.7	Rotterdam,Holland	Vancouver, B. C.	General, bananas	2,725	10,793	7,619
Nemanja	17	13.45	17	16.25	18	2.35	18	3.54	Yugoslav	Baburizza & Co	400.3	52.0	24.6	London, England	Valparaiso, Chile	Cement	6,551	5,748	4,056
Vega [6]	16	16.50	18	6.00	18	15.21	19	20.10	American	U. S. Navy	390.0	54.0	19.2	Hampton Rds., Va.	Los Angeles, Calif	Naval stores	3,043		
San Jose	17	8.40	18	6.13	18	22.30	19	1.54	American	United Fruit Co	330.0	44.6	17.3	Cristobal, C. Z	San Francisco, Cal.	General, bananas	555	3,675	2,359
Nitro [7]	17	00.50	18	6.05	18	17.05	20	10.28	American	U. S. Navy	462.0	60.0	25.10	Hampton Rds., Va.	Los Angeles, Calif	Naval stores	3,515		
Levant Arrow [1]	18	3.25	18	7.40	18	17.48	18	18.42	American	Standard Transp. Co.	468.3	62.7	18.6	Providence, R. I.	Shanghai, China	Ballast		9,841	6,985
Anten	17	22.40	18	8.45	18	18.53	18	19.55	Swedish	Transatlantic S. S. Co	420.0	54.0	24.0	Antwerp, Belguim	Los Angeles, Calif	Cement clinkers	7,500		
Corvus	18	10.55	18	11.05	18	19.50	18	22.35	American	Isthmian S. S. Lines	410.5	54.0	24.0	Baltimore, Md	San Francisco, Cal.	Steel, general	7,165	6,604	4,655
Margarethe Cords	18	1.40	18	11.10	18	19.54	18	21.10	German	Colombian Mar. Co	266.0	42.0	12.8	New York, N. Y.	Buenaventura, Col.	General	572	2,263	1,622
Sliedrecht [1] [2]	18	6.45	18	12.15	18	20.32	18	21.46	Dutch	Phr. Van Ommeren	370.0	52.0	17.9	Rotterdam,Holland	Los Angeles, Calif	Ballast			
Iowan	18	14.48	18	15.00	18	21.38	18	22.34	American	Amer.-Hawaiian Line	407.7	53.7	21.0	Boston, Mass	Portland, Oreg	General	4,109	7,079	5,028
Rapot	17	15.32	18	15.40	18	23.28	19	00.40	German	North German Lloyd	393.0	54.0	23.11	Hamburg,Germany	San Antonio, Chile	General	5,077	6,583	4,626
Hilda Knudsen [1] [2]	18	16.20	18	16.55	19	00.19	19	1.53	Norwegian	Knut Knudsen	470.3	64.3	21.0	Avonmouth, Eng	Los Angeles, Calif	Ballast		9,474	6,489
Heffron	18	17.00	18	18.45	19	3.40	19	4.57	American	Argonaut S. S. Co	440.0	56.0	28.0	New York, N. Y.	Seattle, Wash	Steel, general	10,229	8,312	6,097
V-5 [8]			18		18				American	U. S. Army				Cristobal, C. Z	Balboa, C. Z				

[1] Tanker. [5] U. S. Army mine planter. [6] Supply ship. [7] Ammunition ship. [8] Launch.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Chickasaw City	11	20.00	12	2.13	12	10.15	12	10.15	American	Isthmian S. S. Lines	395.5	55.0	26 9	Everett, Wash	Newark, N. J	Lumber	7,262	7,322	5,237
Manhattan Island	11	23.20	12	3.40	12	12.15	12	12.15	American	Redwood Line, Inc	386.6	52 2	23 2	San Francisco, Cal.	Mobile, Ala	Lumber, general	5,647	5,696	4,125
W. S. Rheem [1]	12	4.40	12	5.26	12	14.05	12	14.05	American	Standard Oil Co. of Cal.	500.0	68 2	28 6	Los Angeles, Calif	Philadelphia, Pa	Gasoline	14,000	11,224	7,895
Yankee Arrow [1]	12	4.45	12	6.20	12	15.10	12	15.10	American	Standard Transp. Co.	468.3	62 7	27.6	Los Angeles, Calif	New York, N. Y	Gasoline	11,145	9,841	6,946
Brielle	12	19.00	13	2.00	13	10.26	13	15.10	Dutch	Royal Neth. S. S. Co	402.4	58 2	27 8	Valparaiso, Chile	Hamburg, Germany	Nitrates, general	8,794	7,322	4,798
Watertown [1]	12	21.00	13	4.02	13	13.25	13	14.45	American	Cities Service Corp	416.9	56 2	27 6	Los Angeles, Calif	Providence, R. I	Gasoline	9,133	6,717	4,778
Teno	12	23.30	13	4.56	13	12.25	13	18.19	Chilean	Chilean Line	422.8	56 2	26.5	Talcahuano, Chile	New York, N. Y	General	4,893	7,764	4,672
Howick Hall	13	3.15	13	6.05	13	14.40	13	16.10	American	Isthmian S. S. Lines	400.8	51 5	25 6	Tocopilla, Chile	Pensacola, Fla	Nitrates	7,500	6,095	4,381
Firmore	13	3.50	13	7.10	13	15.30	13	15.30	American	Ore S. S. Corp	449.1	57 2	28 2	Cruz Grande, Chile	Baltimore, Md	Iron ore	11,516	7,847	5,185
Nyanza	13	4.40	13	7.47	13	15.50	13	16.25	British	Wessel, Duval & Co	402.7	52 2	24.0	Iquique, Chile	Wilmington, N. C	Nitrates	7,700	5,583	4,073
Albionstar	13	7.30	13	8.51	13	16.50	13	16.50	British	Blue Star Line	450.0	58 5	23.8	San Francisco, Cal.	Liverpool, England	Fruit, general	4,744	8,317	5,531
Lisa	13	8.45	13	9.39	13	18.45	13	22.12	German	Deutsche Tank Rederei	440.0	52 0	12.0	La Union, Salvador	Tampico, Mexico	Ballast		5,155	3,500
Canadian Winner	13	10.15	13	10.55	13	19.05	13	21.23	British	Can. Nat. Steamships	399.8	52 0	18.0	Auckland, N. Z	Montreal, Canada	General	3,070	5,885	4,073
Rolling Stone [9]			13	11.47	13	20.35	13	20.35	Panaman	Robert Wilcox	48.0	11 0		Balboa, C. Z	Cristobal, C. Z			27	20
Jamaica	13	12.01	13	12.45	13	21.00			British	Pacific Steam Nav. Co	220.0	34 0	13.3	Champerico, Guat.	Cristobal, C. Z	[13]	828	1,187	622
Kenowis [10]	11	7.30	13	15.59	13	22.55	14	23.15	American	U. S. Army	390.0	54.0	17.3	San Francisco, Cal.	New York, N. Y	Military supplies	205		
K. I. Luckenbach	14	3.30	14	5.24	14	12.05	14	14.50	American	Luckenbach Line	446.0	56 1	28 6	Portland, Oreg	Boston, Mass	Lumber, general	7,708	8,552	6,236
Virginia	13	10.37	14	8.10	14	15.40	14	16.10	American	Panama-Pacific Line	586.4	80 3	28.0	San Francisco, Cal.	New York, N. Y	[14]	4,298	25,254	18,170
Missourian [11]	14	7.35	14	8.36	14	16.40	14	16.40	American	Amer.-Hawaiian Line	445.1	59 8	26 6	Portland, Oreg	New York, N. Y	Lumber, general	8,192	8,567	6,020
Oilpioneer [11]	14	8.30	14	9.30	14	17.50	14	17 50	British	British Oil Shipping Co.	410.0	53 5	26 6	Los Angeles, Calif	London, England	Gasoline	7,779	6,010	4,094
Mayebashi Maru	14	11.00	14	12 21	14	19.45	14	22.05	Japanese	Nippon Yusen Kaisha	445.0	58.0	24.8	Manila, P. I	New York, N. Y	General	9,419	8,012	5,749
Wayfarer	14	11.30	14	13.15	14	22 20	15	3.30	British	T. & J. Harrison	395.0	52.0	25.0	Vancouver, B. C.	London, England	General	6,823	5,728	3,855
Editor	14	8.40	14	13.10	14	20 35	14	20.35	American	Roosevelt S. S. Co., S. B.	402.6	54.8	23.0	Adelaide, Australia	Baltimore, Md	[15]	6,688	6,934	5,102
Venezuela	14	11.10	15	4.14	15	11 35			American	Panama Mail S. S. Co.	380.0	48.7	23.6	San Francisco, Cal.	New York, N. Y	Coffee, general	3,067	6,033	4,353
Ashby	15	4.40	15	5.36	15	13.10	15	18.30	British	Sir R. Ropner & Co	405.1	53 6	24.1	Vancouver, B. C	Quebec, Canada	Lumber	6,583	5,858	4,300
Republic [1]	15	5.00	15	6 20	15	14.10	15	14.10	American	Petroleum Nav. Co	391.8	51.3	26.0	San Francisco, Cal.	Baltimore, Md	Gasoline	5,864	5,551	3,881
Yorba Linda [1]	15	5.54	15	7.53	15	15.35	15	20.10	American	Standard Transp. Co.	435.0	56.2	26.0	Los Angeles, Calif	New York, N. Y	Gasoline	8,559	7,424	5,077
Socony [1] [12]	15	5.54	15	7.32	15	19.50	15	20.10	American	Standard Oil Co. of N. Y.	250.0	43.1	23.6	Los Angeles, Calif	New York, N. Y	Gas oil	3,801	2,431	2,062
Cleveland			15	8.18	15	17.10			American	U. S. Navy	292.0	44 0		Balboa, C. Z	Cristobal, C. Z				
Nebraska	15	6.02	15	9.50	15	18.28			British	Royal Mail S. P. Co	450.0	58.0	24.0	Vancouver, B. C.	Rotterdam, Holland	Fruit, general	5,790	8,878	6,588
Baralt	15	7.00	15	10.02	15	18 40			Dutch	Royal Neth. S. S. Co.	202 9	33 1	12.6	Guayaquil, Ecuad'r	Cristobal, C. Z	General	501	1,183	742
Alvarado	15	7.05	15	10.25	15	19.45			British	Pacific Steam Nav. Co	503.0	43.0	16.4	Salaverry, Peru	New York, N. Y	Coffee, general	691	2,844	1,748
Erviken	15	5.15	15	11.47	15	20.10	15	20.45	Norwegian	Wallem & Co	420.0	54 0	27.3	New Westminster	Boston, Mass	Lumber	8,400	6,979	5,136
Oriole	15	19.40	16	2.48	16	10.20	16	10.20	American	Quaker Line	410.5	54.2	26.6	Portland, Oreg	New York, N. Y	Lumber	7,000	6,755	4,873
Sawied	15	23.30	16	3.50	16	11.35	16	11.35	American	Transmarine Lines	324.0	46.2	23.0	San Francisco, Cal.	Baltimore, Md	Lumber, general	4,500	3,983	2,629

[1] Tanker. [9] Yacht. [10] U. S. Army transport. [11] Motorship. [12] With barge *No. 82*. [13] Coffee, hides, wood, and copra. [14] Canned fruit and general. [15] Ore, wool, copra, and general.

San Ubaldo [1]	15	15.00	16	4.55	16	12.40	16	12.40	British	Eagle Oil Transp. Co.	412.0	53.0	24.6	Los Angeles, Calif.	Lizards, England [19]	Gasoline	7,449	5,976	4,068
Palatia [11]	15	20.30	16	5.32	16	14.05	17	00.45	German	Hamburg-AmericanLine	374.0	54.0	22.0	Corral, Chile	Hamburg,Germany	General	5,285	5,384	3,442
Pilot	16	6.15	16	7.08	16	15.20	17	1.50	German	Hamburg-AmericanLine	399.0	54.2	25.0	Valparaiso, Chile	Hamburg,Germany	General	7,051	6,056	4,362
Clan Matheson	16	6.35	16	7.57	16	16.35	16	16.35	British	Cayzer, Irvine & Co	397.0	51.0	27.0	Iquique, Chile	Norfolk, Va	Nitrates	7,400	6,085	4,179
Manizales	16	8.30	16	10.08	16	18.05	17	11.30	German	Roland Line	216.0	33.0	13.4	Guayaquil, Ecuad'r	Cristobal, C. Z	General	545	1,132	741
C. O. Stillman [1 12]	16	9.50	16	10.53	16	20.25	16	22.35	British	International Pet. Co	565.0	75.6	33.6	Talara, Peru	New York, N. Y.	Crude oil	21,000	16,780	9,885
Falsterbo [17]	16	10.35	16	11.45	16	20.40	16	20.40	Swedish	Axel Brostrom & Son	349.5	50.6	23.0	Vancouver, B. C.	New York, N. Y.	Lumber	6,095	4,917	3,523
Paul Shoup [1]	16	10.42	16	12.21	16	21.48	16	21.48	American	Associated Oil Co	424.4	58.2	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,000	7,333	5,182
San Jose	16	22.40	17	00.16	17	8.40	18	6.13	American	United Fruit Co	320.0	44.6	19.0	San Francisco, Cal.	Cristobal, C. Z	Lumber, general.	726	3,675	2,359
William H. Doheny [1]	16	19.35	17	4.04	17	11.35	17	11.35	American	Pan.-Am. Pet. & Tr. Co.	435.0	56.2	26.0	Los Angeles, Calif.	Baltimore, Md	Gasoline	9,500	7,406	5,111
Marore	17	5.00	17	7.04	17	20.05	17	20.05	American	Ore S. S. Corp	550.3	72.2	33.6	Cruz Grande, Chile	Baltimore, Md	Iron ore	21,654	15,551	4,297
Jane Christenson	17	4.30	17	7.44	17	17.05	17	17.05	American	Arrow Line	423.0	54.3	24.0	Tacoma, Wash	New York, N. Y.	Lumber	7,649	6,615	4,297
San Lamberto [1]	16	23.30	17	8.06	17	18.15	17	18.15	British	Anglo-Mexican Pet. Co.	395.0	55.1	20.0	Antofagasta, Chile.	Aruba, D. W. I.	Ballast		6,740	4,345
Montanan	17	7.45	17	10.16	17	20.55	17	20.55	American	Amer.-Hawaiian Line	404.6	53.9	25.0	Seattle, Wash	Boston, Mass	General	6,084	6,756	4,775
Trimountain [1]	17	10.20	17	11.10	17	22.10	17	22.10	American	B. L. Shipping Co	416.9	56.2	26.6	Los Angeles, Calif.	Curacao, D. W. I.	Gas oil	9,519	6,728	4,734
M. D. [16]			17		17				American	J. H. Mhoon				Balboa, C. Z	Cristobal, C. Z				
Denver			18	6.27	18	14.35	20	00.05	American	U. S. Navy	292.0	44.0		Balboa, C. Z	Cristobal, C. Z				
S-12 [17]			18	6.30	18	14.35			American	U. S. Navy	231.0	31.0		Balboa, C. Z	Cristobal, C. Z				
S-20 [17]			18	6.55	18	15.50			American	U S Navy	231.0	31.0		Balboa, C Z	Cristobal, C Z				
Visurgis	18	5.45	18	7.13	18	17.05			German	Panama Mail S. S. Co	229.7	37.8	12.0	Puntarenas, C. R.	Cristobal, C. Z	([20])	144	1,406	855
Mallard			18	7.30	18	15.50			American	U. S. Navy	187.0	35.6		Balboa, C. Z	Cristobal, C. Z				
Point Gorda	18	7.08	18	8.19	18	16.30	18	16.30	American	Swayne & Hoyt, Inc.	324.0	46.2	18.0	Portland, Oreg	New Orleans, La.	Lumber, general.	3,238	3,984	2,642
Arkansas	18	8.00	18	9.22	18	18.15	19	13.45	French	French Line	468.5	52.2	26.0	Vancouver, B. C.	Antwerp, Belgium	General	8,420	7,678	5,563
J. R. Gordon	18	8.40	18	9.58	18	19.05	18	19.05	American	Union Sulphur Co	409.8	54.2	24.3	Everett, Wash	New York, N. Y.	Lumber	7,000	6,581	4,784
Anna Maersk [1 12]	18	10.30	18	11.32	18	20.20	18	20.20	Danish	A. P. Moller	390.6	53.7	25.9	Los Angeles, Calif.	Coryton, England	Gasoline	7,480	6,012	4,097
Doris [16]	17	9.45	18		18				Panaman	United Fruit Co	37.5			Balboa, C. Z	Gatun Lake, C. Z.	([21])			
No. 31054 [18]	17	9.45	18		18				Panaman	United Fruit Co				Balboa, C. Z	Gatun Lake, C. Z.	([22])			
No. 31067 [18]	17	9.45	18		18				Panaman	United Fruit Co				Balboa, C. Z	Gatun Lake, C. Z.	([22])			
No. 31082 [18]	17	9.45	18		18				Panaman	United Fruit Co				Balboa, C. Z	Gatun Lake, C. Z.	([22])			

[1] Tanker. [16] Launch. [17] Submarine. [18] Barge. [19] For orders. [20] Coffee, hides, and general. [21] Towing barges. [22] Towed by *Doris*.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
May 12	Ulua	United Fruit Co	Port Limon, Costa Rica.
May 13	Maravi	United Fruit Co	Puerto Colombia.
May 13	Camden	United Fruit Co	Curacao, D. W. I.
May 13	Galicia	Hamburg-American Line	Hamburg via wayports.
May 13	Toloa	United Fruit Co	New York via Habana.
May 13	Oranian	Leyland Line	Palo Alto, Cuba.
May 13	No. 9664 [23]	Pan-American Airways	Tela via wayports.
May 14	No. 9612 [23]	Pan-American Airways	Miami via wayports
May 14	Centro America [24]	Guatemalan Government	San Jose, Costa Rica.

* DEPARTURES.

Date.	Vessel.	Line.	For—
May 12	Wanks	Stand. Fruit S. S. Co	San Blas, R. P.
May 12	Ulua	United Fruit Co	New York via Habana.
May 12	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
May 13	Impco [25]	Colon Import & Export Co	Colon, R. P.
May 13	Cartago	United Fruit Co	New Orleans via wayports.
May 13	Acacia [26]	U. S. Government	Guantanamo, Cuba.
May 13	Maravi	United Fruit Co	New York via Kingston.
May 14	No. 9685 [23]	Pan-American Airways	Tela via wayports.
May 14	Galicia	Hamburg-American Line	Port Limon, Costa Rica.

[23] Air-mail carrier. [24] Monoplane. * Other than ships passing through the Canal. [25] Motor schooner. [26] Lighthouse tender.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 15	Magdalena	Hamburg-American Line	Hamburg via wayports.	May 14	Camden	United Fruit Co	Curacao, D. W. I.
May 15	Santa Marta	United Fruit Co	New York via Kingston.	May 15	Queen of Scots [28]	A. J. Drexel	Habana, Cuba.
May 15	Flandre	French Line	Havre via wayports.	May 15	Toloa	United Fruit Co	Port Limon, Costa Rica.
May 15	Cundinamarca No. 33 [27]	Seadta Airplane Co	Barranquilla, Colombia.	May 16	Cundinamarca No. 33 [27]	Seadta Airplane Co	Barranquilla, Colombia.
May 16	Macabi	United Fruit Co	New York via wayports.	May 16	No. 9664 [27]	Pan-American Airways	Tela via wayports.
May 16	No. 9685 [27]	Pan-American Airways	Tela via wayports.	May 16	Santa Marta	United Fruit Co	New York via wayports.
May 17	Annetta I. [28]	A. Tagaropulos	Colon, R. P.	May 16	Flandre	French Line	Havre via wayports.
May 17	Anachucuna [28]	United Fruit Co	Colon, R. P.	May 16	Magdalena	Hamburg-American Line	Port Limon, Costa Rica.
May 17	Inapaquina [28]	United Fruit Co	Colon, R. P.	May 17	No. 9775 [27]	Pan-American Airways	Guayaquil via wayports.
May 17	Saramacca	United Fruit Co	New Orleans, La.	May 17	Saramacca	United Fruit Co	New Orleans, La.
May 17	Amapala	Stand. Fruit S. S. Co	New Orleans via Habana.	May 17	Oranian	Leyland Line	Liverpool via wayports.
May 17	Suriname	United Fruit Co	Port Limon via Bocas.	May 17	Macabi	United Fruit Co	Santa Marta via wayports.
May 18	Wanks	Stand. Fruit S. S. Co	San Blas, R. P.	May 17	Anachucuna [28]	United Fruit Co	Colon, R. P.
May 18	Parismina	United Fruit Co	New Orleans via Habana.	May 17	Inapaquina [28]	United Fruit Co	Colon, R. P.
May 18	No. 9664 [27]	Pan-American Airways	Tela via wayports.	May 17	Annetta I. [28]	A. Tagaropulos	Colon, R. P.
				May 18	Suriname	United Fruit Co	New Orleans, La.
				May 18	Amapala	Stand. Fruit S. S. Co	New Orleans via wayp'ts.
				May 18	No. 9685 [27]	Pan-American Airways	Managua via wayports.
				May 17	Centro America [30]	Guatemalan Government	Guatemala.

[27] Air-mail carrier. [28] Motor boat. [29] Yacht. [30] Monoplane.

PORT OF BALBOA.

May 13	San Luis [31]	Chiriqui Land Co	Pto. Armuelles, R. P.	May 13	San Luis [31]	Chiriqui Land Co	Pto. Armuelles, R. P.
May 16	Davanger	Shell Oil Co	Los Angeles, Calif.	May 17	El Colon [31]	Hans Elliot	Panama Bay, R. P.
May 17	El Colon [31]	Hans Elliot	El Real, R. P.	May 17	Dixie [32]	Pacific Fruit Co	Panama Bay, R. P.
May 17	Dixie [32]	Pacific Fruit Co	Bayano River, R. P.	May 17	Dos Hermanos [31]	A. Valdez	Panama Bay, R. P.
May 17	Dos Hermanos	A. Valdez	Bayano River, R. P.	May 18	Davanger	Shell Oil Co	San Pedro, Calif.
May 17	Sambu [31]	Hans Elliot	El Real, R. P.				

[31] Motor schooner. [32] Motor schooner and barge. * Other than ships passing through the Canal.

Cargo Through Canal During April, 1929.

On pages 600 and 601 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in April, 1929. This cargo, segregated according to direction, as compared with April, 1928, and the differences, is shown in the following tabulation:

	April 1929.	April 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Atlantic to Pacific	862,450	742,388	+120,062
Pacific to Atlantic	1,857,218	1,731,496	+125,722
Totals	2,719,668	2,473,884	+245,784

As will be noted above cargo tonnage from the Atlantic to the Pacific increased 120,062 tons and that in the opposite direction a gain of 125,722 tons, making an increase in both directions over April, 1928, of 245,784 tons.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-four and six-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 25.9 per cent in Europe. Cargo originating in the United States was 81,405 tons, or 17.1 per cent, greater than the tonnage from the United States in April, 1928, although the proportion of the whole was approximately the same. Cargo from Europe increased 17,848 tons, or 8.7 per cent, over April, 1928, although, relatively, the amount coming from that area in April, 1928, was slightly higher than the tonnage passing through last month.

Destination.—Forty-two and six-tenths per cent of the Pacific-bound cargo was destined to the United States; 19.7 per cent to Asia; 16.8 per cent to South America; and 14.3 per cent to Australasia. Cargo tonnage to the United States increased 62,184 tons, or 20.3 per cent; that to Asia 23,391 tons, or 15.8 per cent; and that to South America 36,404 tons, or 33.4 per cent. Tonnage to Australasia showed a decrease of 17,770 tons, or 12.5 per cent. The proportion of the total cargo destined to the United States and South America was also slightly higher last month than in April last year, while that to Asia and Australasia was slightly lower.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction 43.4 per cent came from the west coast of the United States; 30.3 per cent from South America; 14.3 per cent from Canada; 5.9 per cent from Australasia; and 5.0 per cent from Asia. Cargo from the United States, South America, Australasia, and Asia, all showed increases over April, 1928, in the amounts of 13,776 tons, or 1.9 per cent; 123,432 tons, or 28.1 per cent; 12,826 tons, or 13.2 per cent; and 45,307 tons, or 95.7 per cent, respectively, although the proportion of the total cargo originating in the United States was slightly lower last month than the tonnage passing through in April, 1928. Cargo tonnage from Canada decreased 70,945 tons, or 21.0 per cent, under April, 1928. The proportion of the total coming from Canada last month was also considerably lower than in April, 1928, due primarily to lessened wheat shipments from that region.

Destination.—Segregated according to destination, 55.9 per cent of the cargo tonnage in this direction went to ports of the United States,

and 37.8 per cent to Europe. Tonnage to the United States showed a slight relative, as well as an actual increase of 89,285 tons, or 9.4 per cent, and that to Europe gained but slightly in actual tonnage (6,908 tons), while the 40.1 per cent of the total cargo passing through destined to Europe in April, 1928, was slightly higher than in April, 1929.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify over 85 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 15 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Pacific-bound commodities which aggregated more than 10,000 tons for April, 1929, or April, 1928, are listed in the following tabulation, showing differences:

Commodity.	April 1929.	April 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Ammonia	11,200	8,863	+2,337
Automobiles	24,631	12,796	+11,835
Cement	33,651	32,496	+1,155
Coal and coke	17,173	20,971	−3,798
Cotton	15,460	9,813	+5,647
Manufactured goods:			
Iron and steel	229,029	177,006	+52,023
Machinery	16,495	11,889	+4,606
Railroad material	23,949	18,679	+5,270
Textiles	11,837	9,878	+1,959
Tinplate	27,672	13,674	+13,998
Metals	16,500	6,547	+9,953
Oils, mineral	46,266	61,920	−15,654
Paper	20,373	11,730	+8,643
Phosphates	22,042	22,977	−935
Slag	13,514	31,368	−17,854
Sugar	29,354	7,583	+21,771
Sulphur	13,877	22,145	−8,268
Tobacco	7,290	11,473	−4,183

The above 18 commodity groups comprise 67.3 per cent of the cargo from the Atlantic to the Pacific during April, 1929. Twelve of the items showed increases and 6 decreases. The heaviest increases were in manufactures of iron and steel, sugar, tinplate, and automobiles, while slag and mineral oils showed rather sharp decreases.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 98 per cent of all cargo moving from the Pacific to the Atlantic during the month of April, 1929. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing differences:

Commodity.	April 1929.	April 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Barley	14,574	21,521	−6,947
Borax	3,580	11,231	−7,651
Canned goods (fish, fruit, vegetables, etc.)	49,537	44,579	+4,958
Coffee	18,360	19,168	−808
Cold storage (food products)[1]	27,791	36,564	−8,773
Copra	15,955	3,000	+12,955
Flour	8,906	13,434	−4,528
Fruit, dried	14,440	16,438	−1,998
Fruit, fresh	25,690	9,470	+16,220
Lumber	301,631	302,398	−767
Metals, various	51,064	56,019	−4,955
Nitrates	236,351	223,430	+12,921
Oats	11,506	11,096	+410
Oils, mineral	391,426	424,235	−32,809
Ores, principally iron	183,903	99,497	+84,406
Sugar	111,004	44,633	+66,371
Wheat	231,619	272,980	−41,361
Wool	20,309	26,223	−5,914

[1] Does not include fresh fruit.

The foregoing 18 commodity groups comprise 92 per cent of the cargo from the Pacific to the Atlantic during April, 1929. Eleven of the items showed decreases and 7 increases. The heaviest decreases were in mineral oils and wheat, while ores and sugar registered rather large increases.

(Continued on next page.)

Notices to Mariners.

New Light on Margarita Island—Venezuela.

THE PANAMA CANAL EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *May 20, 1929.*

No. 540.

1. The approximate position of this new light is 11° 11′ N., 63° 53′ W., and not 64° 53′ W., as erroneously reported in Notice to Mariners No. 512, dated February 14, 1929.

2. The S. S. *Bayano* passed Margarita Island on the night of May 2, and broadcasted the following wireless to all ships and shore stations:

Ships approaching Margarita Island off coast of Venezuela from northward and westward during hours of darkness are warned lights are unreliable. Nothing seen of Tigre Point Light, nine miles distant, and nothing seen of Cabo de la Isla Light, five miles distant on clear night May 2, between 0200 and 0700 G. M. T. No moon. Shore lights near San Juan Griego Bay plainly visible, distant about five miles.

H. BURGESS,
Governor.

Pacheca Island Light.

THE PANAMA CANAL EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *May 21, 1929.*

No. 541.

The following was received by the Hydrographic Office through the Balboa Radio:

U. S. S. *Submarine No. 11*, May 20. Pacheco Island Light not lighted.
Position: 8° 39′ 48″ N., 79° 03′ 32″ W. (No signature.)

H. BURGESS,
Governor.

THE PANAMA CANAL EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *May 21, 1929.*

No. 542.

The following was received by the Hydrographic Office through the Balboa Radio:

S. S. *Hessron*, May 21. While S. S. *Hessron* bound from Balboa to Los Angeles and in position 7° 8′ N., 81° 27′ W., our standard compass changed from 263° to 250° heading in less than fifteen minutes and came back to normal again in latitude 7° 8′ N., longitude 81° 40′ W. Checked up by gyro and bearings on Jicaron Island. Charged to local attraction.
(Signed) MCPHERSON, *Master.*

H. BURGESS,
Governor.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, April, 1929.—Continued from page 599.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America. [1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America. [1]	Balboa, C. Z. [2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East. [1]	Total, Asia.	Australia.	New Zealand.	Australasia. [1]	Total, Australasia.		
North America:																								
UNITED STATES—																								
North Atlantic ports	10,896	2,659	496	5,223	7,791	27,065	249,672		7,673		52	8,775	266,172	47,201	21,336	22,277	11,207	102,021	18,405	14,712	679	33,796	429,054	49.8
South Atlantic ports	88			808		896	2,733						2,733	7,327	220			7,547	100			100	11,276	1.3
Gulf ports	1,945	350	240	1,002	235	3,772	44,866		2,997		37	20	47,920	35,006	11,160	2,338	4,608	53,112	3,415	8,270		11,685	116,489	13.5
Totals, U. S.	12,929	3,009	736	7,033	8,026	31,733	297,271		10,670		89	8,795	316,825	89,534	32,716	24,615	15,815	162,680	21,920	22,982	679	45,581	556,819	64.6
Cristobal, C. Z. [2]	1,026	3,352	1,115	1,607	1,582	8,682	5,071	51	7,323				12,445										21,127	2.4
East coast of Canada								73					73						10,274	4,320		14,594	14,667	1.7
West Indies	154	6,608				6,762	5,018	4,109	130				9,257		7,000			7,000					23,019	2.7
East coast of Mexico and Central America							675						675										675	.1
Totals, North America	14,109	12,969	1,851	8,640	9,608	47,177	308,035	4,233	18,123		89	8,795	339,275	89,534	39,716	24,615	15,815	169,680	32,194	27,302	679	60,175	616,307	71.5
Europe:																								
British Isles	5,712		102	2,760	8,547	17,121	12,002	6,048	1,090				19,140							44,610		44,610	80,871	9.4
Belgium	5,610	3,542	463	414	146	10,175	16,765	2,241	1,702			1,187	21,895							14,570		14,570	46,640	5.4
Denmark	1,925			354		2,279																	2,279	.3
France	3,081	35	127	1,344	130	4,717	3,404	100	104				3,608								2,469	2,469	10,794	1.3
Germany	1,527	71	675	998	2,235	5,506	3,574	629	1,155		137	5,903	11,398										16,904	2.0
Holland	17	11	2	420	154	604	6,403	840					7,243										7,847	.9
Italy	310		10		1,311	1,631	1,182	76	105				1,363										2,994	.3
Norway and Sweden	1,227	1,773	63	53	6,034	9,150	2,909	58	2,256			30	5,253						1,099			1,099	15,502	1.8
Spain and Portugal	115			95	4	214																	214	.0
Europe [3]	256			14	31,346	31,616	6,270		1,035				7,305										38,921	4.5
Totals, Europe	19,780	5,432	1,442	6,452	49,907	83,013	52,509	9,992	7,447		137	7,120	77,205						1,099	59,180	2,469	62,748	222,966	25.9
East coast of South America	3,530	596		6,000		15,126	7,019	102	524				7,645	406				406					23,177	2.6
Grand totals	42,419	18,997	3,293	21,092	59,515	145,316	367,563	14,327	26,094		226	15,915	424,125	89,940	39,716	24,615	15,815	170,086	33,293	86,482	3,148	122,923	862,450	100.0
Per cent of total cargo:																								
April, 1929	4.9	2.2	.4	2.4	6.9	16.8	42.6	1.7	3.0		.0	1.9	49.2	10.4	4.6	2.9	1.8	19.7	3.9	10.0	.4	14.3	100.0	
April, 1928	5.4	2.1	.5	1.8	4.8	14.6	41.1	1.7	2.1	.3	.8	.6	46.6	7.6	4.5	1.4	6.3	19.8	5.4	11.8	1.8	19.0	100.0	
April, 1927	2.2	1.4		.9	7.5	12.0	46.9	1.3	2.7	1.2	.2	.6	52.9	8.5	4.9	.5	6.1	20.0	5.5	8.3	1.3	15.1	100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, April, 1929.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.												East coast of South America.	Grand totals.	Per cent of total cargo.
	United States.				East coast of Canada.	West Indies.	E. coast Mexico & Central America.	Cristobal, C. Z. [2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Russia.	Europe. [1]	Total, Europe.			
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.																				
South America:																								
Chile	226,266	42,297	21,344	289,907	.....	1,127	.....	892	291,926	23,505	13,787	.....	12,378	2,958	2,453	1,082	1,253	6,064	.....	71,032	134,512	.....	426,438	22.9
Colombia	1,554	.....	.....	1,554	.....	.....	.....	3,453	5,007	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5,008	.3
Ecuador	15,455	.....	.....	15,455	.....	.....	.....	4,136	19,591	85	28	.....	143	70	202	293	.....	18	.....	329	1,168	.....	20,759	1.1
Peru	4,892	.....	.....	4,892	52,300	.....	.....	2,037	59,229	7,720	.....	.....	5	35	11,300	32	.....	1	.....	930	20,021	.....	79,250	4 3
West coast of South America [1]	26,694	.....	.....	26,694	.....	216	.....	7	26,917	2,810	.....	.....	.....	.....	.....	.....	.....	.....	.....	824	3,634	.....	30,551	1.7
Totals, S. Amer.	274,861	42,297	21,344	338,502	52,300	1,343	.....	10,525	402,670	34,120	13,815	.....	12,526	3,061	13,955	1,407	1,253	6,083	.....	73,115	159,335	1	562,006	30.3
North America:																								
West coast, Canada	20,175	.....	1,084	21,259	18,885	5,195	.....	.....	45,339	75,330	8,669	19,627	9,446	15,148	18,320	3,755	9,850	107	.....	59,271	219,523	1,349	266,211	14 3
W. coast, Cen. Amer.	25	.....	.....	25	.....	.....	31	6,977	7,033	1,649	57	.....	758	2,123	1,215	50	1,279	.....	.....	1,729	8,860	240	16,133	.9
West coast, U. S.	496,718	2,553	41,858	541,129	.....	11,922	3,623	3,685	560,359	116,192	18,977	1,354	18,770	27,356	16,905	2,304	2,782	7,246	.....	34,097	245,983	82	806,424	43.4
Hawaii	3,255	.....	.....	3,255	.....	.....	.....	.....	3,255	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,255	.2
Totals, N. America.	520,173	2,553	42,942	565,668	18,885	17,117	3,654	10,662	615,984	193,171	27,703	20,981	28,974	44,627	36,440	6,109	13,911	7,353	.....	95,097	474,366	1,671	1,092,023	58 8
Asia:																								
China	2,763	.....	.....	2,763	.....	.....	.....	73	2,836	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,836	.1
Japan	3,112	.....	.....	3,112	.....	.....	.....	.....	3,112	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,112	.2
Philippines	83,778	.....	2,270	86,048	.....	.....	.....	.....	86,048	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	86,048	4 6
Far East [1]	1,192	.....	.....	1,192	.....	.....	.....	.....	1,192	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,192	.1
Totals, Asia	90,845	.....	2,270	93,115	.....	.....	.....	73	93,188	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	93,188	5 0
Australasia:																								
Australia	9,306	.....	.....	9,306	360	.....	.....	.....	9,666	6,652	.....	.....	3,011	.....	.....	.....	.....	.....	.....	.....	9,663	.....	19,329	1 0
New Zealand	3,793	.....	.....	3,793	191	.....	.....	.....	3,984	51,138	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	51,138	.....	55,122	3 0
Australasia [1]	24,396	.....	4,450	28,846	.....	.....	.....	.....	28,846	34	.....	.....	3,270	.....	.....	.....	.....	.....	.....	3,400	6,704	.....	35,550	1 9
Totals, Australasia.	37,495	.....	4,450	41,945	551	.....	.....	.....	42,496	57,824	.....	.....	6,281	.....	.....	.....	.....	.....	.....	3,400	67,505	.....	110,001	5 9
Grand totals	923,374	44,850	71,006	1,039,230	71,736	18,460	3,654	21,260	1,154,340	285,115	41,518	20,981	47,781	47,688	50,395	7,516	15,164	13,436	.....	171,612	701,206	1,672	1,857,218	100 0
Per cent of total cargo:																								
April, 1929	49.7	2.4	3.8	55 9	3.9	1.0	.2	1 1	62.1	15.4	2.2	1.1	2.6	2.6	2 7	.4	.8	.7	.....	9 2	37 8	.1	100 0	.....
April, 1928	46 8	4 9	3.2	54 9	.9	.9	1 1	1.5	59.3	20.3	2.2	1.0	1.8	4.4	2.9	1 1	1 0	.....	.3	5 1	40 1	.2	100 0	.....
April, 1927	54.2	3 4	3.2	60 8	7 0	2.2	.6	3.7	74.3	9 0	.8	.2	.3	2.0	.4	.1	.....	2	.....	9 9	22.9	1 3	100 0	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending May 11, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Esparta	United Fruit Co		May 5		369
Wanks	Stand. Fruit S. S. Co		May 5		6
Leme	Nav. Libera-Triestina		May 5		3
Saramacca	United Fruit Co		May 5		9
Floreana	Colombian Transp. Co		May 5		400
City of San Francisco	Panama Mail S. S. Co		May 5		3,300
Ucayali	Peruvian Line		May 5		308
Pastores	United Fruit Co	May 5	May 5	30	286
Coppename	United Fruit Co	May 5	May 6	55	24
Guayaquil	Panama R. R. S. S. Line	May 5	May 6	93	957
Buenaventura	Panama R. R. S. S. Line	May 5	May 6	1,085	60
Montana	Huasteca Petroleum Co	May 5	May 6	10,015	(2)
Cerigo	Hamburg-American Line	May 5	May 11	520	232
Santa Teresa	Grace Line	May 6	May 6	54	(2)
Havre Maru	Osaka Shosen Kaisha	May 6	May 7	447	(2)
Ulua	United Fruit Co	May 6	May 8	332	107
Maravi	United Fruit Co	May 6	May 6	876	222
Witram	North German Lloyd	May 6	May 6	(1)	112
Heredia	United Fruit Co		May 6		94
Teutonia	Hamburg-American Line	May 6	May 7	15	867
La Marseillaise	French Line	May 6	May 7	425	51
Van Rennselaer	Royal Neth. S. S. Co	May 7	May 8	120	18
San Francisco	Hamburg-American Line	May 7	May 8	(1)	417
Zacapa	United Fruit Co	May 8	May 9	350	337
Cristobal	Panama R. R. S. S. Line	May 8		3,578	
Aconcagua	Chilean Line	May 8	May 8	(1)	9
Linda S.	R. Feuillebois	May 8	May 8	(1)	36½
Emil Kirdorf	Hamburg-American Line	May 8	May 9	46½	17
Sachsen	Hamburg-American Line	May 8	May 9	(1)	506
Oropesa	Pacific Steam Nav. Co	May 8	May 9	66	74
Ninian	Leyland Line	May 8	May 9	728	(2)
Pacific Enterprise	Furness, Withy & Co	May 8	May 11	20	386
Glamorganshire	Pacific Steam Nav. Co	May 9	May 11	740	307
Cauca	National Navigation Co	May 9		281	
Coppename	United Fruit Co	May 10	May 10	30½	149
Caldas	National Navigation Co		May 10		200
Nosa Queen	Nosa Line	May 10	May 11	68	396
Suriname	United Fruit Co	May 10	May 11	810	46
La Perla	United Fruit Co	May 10	May 11	1,158	627
Atlantida	Stand. Fruit S. S. Co	May 10	May 11	409	536
Cali	North German Lloyd	May 10		797	
Van Rennselaer	Royal Neth. S. S. Co	May 11	May 11	14	452
Cid	Pacific Steam Nav. Co	May 11		214	
Ariguani	Elders & Fyffes, Ltd	May 11	May 11	½	(2)
Wanks	Stand. Fruit S. S. Co	May 11	May 11	183	1
Cartago	United Fruit Co	May 11		455	
Eemdijk	Holland-American Line	May 5	May 5	8	112

[1] No cargo discharged. [2] No cargo laded.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2	$8.00	$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds	11.00	14.00

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., May 29, 1929. No. 43.

Tender for Dredge "Las Cruces" to be Built in Canal Shops.

A tender for the new Diesel-electric dredge *Las Cruces* is to be built in the shops of the Mechanical Division of The Panama Canal. This tender will be all steel, 60 feet long by 16 feet beam, with molded depth of 8 feet, and will have a draft of approximately 5 feet 6 inches. The design of the hull is complete and fabrication of the material is in progress in the shops. The keel is to be laid about June 15, 1929, and it is hoped to have the boat in commission by August 1, 1929.

The tender will be powered with a 4-cylinder 10 by 12½-inch Diesel engine, developing 120 horsepower, operating at 360 revolutions per minute. A pedestal located in the pilot house will permit the operator of the tender to control completely the starting and stopping, as well as the speed of the engine. By this means the operator will have full direct control of the vessel, making unnecessary the use of gongs, bells, and other signals operating between pilot house and engine room. The vessel will be lighted from a generator directly connected to the engine. Constructed with an oil capacity of 13 tons, the tender will be capable of operating at full speed for fourteen 24-hour days without refueling.

The tender will be used to perform miscellaneous light towing duties, such as handling floating pipe line, water and oil barges, carrying crews at change of watches, handling material, etc., and miscellaneous light towing for the dredging fleet which may be stationed in the locality of the *Las Cruces*.

A description of the *Las Cruces*, which was placed in commission last February, appeared in THE PANAMA CANAL RECORD, issue of January 16, 1929.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Information from American Consuls.

The Consular officers of the United States at seaports all over the world are *ex officio* representatives of The Panama Canal for the purpose of furnishing information to shipping and allied interests as to conditions, charges, etc., at the Panama Canal affecting the operation of ships. The current publications of The Panama Canal of interest to shipping are furnished to the Consular officers and filed for reference.

It is not desired that inquiries of a general nature be addressed to the Consular officers, or that they be burdened with requests which should be made direct to The Panama Canal; but ships' operators who may not be sufficiently advised as to charges, supplies, facilities, etc., at the Canal will often save time by applying to the nearest American Consul.

CANAL WORK IN APRIL, 1929.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of April, 1929.

BALBOA HEIGHTS, C. Z., *May 20, 1929.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering the operations of The Panama Canal during the month of April, 1929.

NUMBER OF TRANSITS.

During the month 540 commercial vessels passed through the Canal. In addition to these, 41 nonseagoing launches measuring under 20 tons, and 40 vessels belonging to the United States Government transited the Canal. There were also 3 transits of a Panaman Government vessel and 3 transits of vessels solely for repairs, on which no tolls were collected, making a total of 627 transits for the month, or a daily average of 20.9.

Tolls on the 540 commercial vessels amounted to $2,281,087.27, and on the launches to $463.44, a total of $2,281,550.71, or a daily average on all traffic of $76,051.69.

Total commercial traffic for the past month was higher by 4 transits than that for the previous month although the amount of tolls collected was slightly less than the amount collected in March, 1929 ($2,343,865.55). Traffic for the first ten months of the current fiscal year is slightly lower than that for the same period last year with respect to the number of transits and tolls collected, while the net tonnage of vessels, Panama Canal measurement, and tons of cargo carried are slightly higher.

The total numbers of craft of all kinds transiting the Canal during the month of April, 1929, as compared with the same month in 1928 and 1927, are shown in the following tabulation:

	April 1929.	April 1928.	April 1927.
Commercial vessels	540	531	464
Launches (under 20 tons measurement)	41	16	15
Noncommercial vessels:			
United States Government	40	58	70
Panaman Government	3	.....	3
Vessels transiting for repairs	3	3	.....
Totals	627	608	552

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Totals.
Gatun	5	6	11
Pedro Miguel	22	28	50
Miraflores	24	31	55
Totals	51	65	116

COMMERCIAL TRAFFIC.[1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1929, to the end of April, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927–8	1928–9	1927–8.	1928–9.	1927–8.	1928–9.	1927–8.	1928–9.
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	$2,215,515.99	$2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
September	540	487	2,532,942	2,295,053	2,397,753	2,313,011	2,294,432.34	2,111,230.56
October	567	557	2,585,752	2,515,380	2,717,646	2,582,477	2,380,115.97	2,274,945.30
November	559	527	2,591,717	2,468,297	2,488,882	2,501,630	2,369,267.99	2,225,937.48
December	589	579	2,616,728	2,698,140	2,573,828	2,714,987	2,398,459.75	2,443,029.39
January	540	603	2,422,770	2,771,280	2,372,061	2,858,835	2,212,752.50	2,502,815.12
February	547	522	2,460,111	2,428,530	2,660,425	2,550,498	2,253,755.37	2,211,961.20
March	542	536	2,441,077	2,567,961	2,428,662	2,743,768	2,223,370.57	2,343,865.55
April	531	540	2,384,491	2,488,176	2,473,884	2,719,668	2,187,607.82	2,281,087.27
Totals	5,467	5,386	24,956,157	24,988,458	24,993,556	25,702,165	22,809,318.85	22,703,024.37

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panaman, and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for April, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly averages for the calendar year 1928:

	April 1929.	April 1928.	April 1927.	Average per month for calendar year 1928.
Number of vessels	540	531	464	528
Panama Canal net tonnage	2,488,176	2,384,491	2,224,500	2,411,953
United States net tonnage	1,899,607	1,839,021	1,750,360	1,851,471
Registered gross tonnage	3,127,365	3,012,294	2,852,638	3,029,975
Registered net tonnage	1,917,378	1,845,976	1,747,986	1,855,554
Tolls	$2,281,087.27	$2,187,607.82	$2,065,206.92	$2,197,996.86
Tons of cargo carried	2,719,068	2,473,884	2,429,807	2,450,132

The average daily number of transits, tonnage, tolls, and cargo, is shown in the following statement, in comparative form, commercial transits only:

	Average per day.			Average per day for calendar year 1928.
	April, 1929.	April, 1928.	April, 1927.	
Number of transits	18.00	17.70	15.46	17.31
Panama Canal net tonnage	82,939	79,483	74,150	79,080
Tolls	$76,036.24	$72,914.55	$68,840.23	$72,065.47
Tons of cargo carried	90,635	82,463	80,993	80,332

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during April, 1929, as compared with April, 1928 and 1927, are shown in the following tabulation:

	Average per vessel.		
	April 1929.	April 1928.	April 1927.
Panama Canal net tonnage	4,608	4,940	4,794
United States net tonnage	3,518	3,463	3,772
Registered gross tonnage	5,791	5,673	6,147
Registered net tonnage	3,551	3,476	3,767
Tolls	$4,224.24	$4,119.60	$4,450.88
Tons of cargo (including vessels in ballast)	5,036	4,696	5,236
Tons of cargo (laden vessels only)	5,786	5,597	6,480

TOLLS.

At present tolls are collected at rates of $1.20 per net ton for laden vessels and $0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provisions that tolls shall not exceed $1.25 per ton nor be less than $0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected on laden vessels averaged $0.942 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of April, 1929, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1.00 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian	$8,351.92	$7,499.60		$852.32
British	664,221.71	698,317.60	34,095.89	
Chilean	7,582.50	7,768.00	185.50	
Colombian	8,164.52	7,946.80		217.72
Danish	46,268.59	47,616.20	1,347.61	
Danzig	23,809.94	21,885.20		1,924.74
Dutch	54,366.80	66,150.00	11,783.20	
French	44,856.25	45,338.00	481.75	
German	79,809.40	89,116.00	9,306.60	
Greek	10,520.00	11,930.00	1,410.00	
Italian	46,060.00	47,471.00	1,411.00	
Japanese	83,608.37	77,335.60		6,272.77
Mexican	613.50	613.50		
Norwegian	112,809.41	121,114.80	8,305.39	
Panaman	15,075.74	14,443.20		632.54
Peruvian	5,023.75	8,323.00	3,299.25	
Spanish	1,691.50	1,691.50		
Swedish	39,776.25	45,834.00	6,057.75	
United States	1,015,224.79	1,035,892.00	20,667.21	
Yugoslav	13,252.33	13,585.40	333.07	
Totals	2,281,087.27	2,369,871.40	98,684.22	9,900.09
Net increase for all traffic			88,784.13	

The increase on vessels of the United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$27,443.11
United States foreign trade	[1] 556.06
United States–Canal Zone trade	[1] 6,219.84
Net increase	20,667.21

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in April, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian		1.66	1.66
British	.91	1.31	1.15
Chilean		1.25	1.25
Colombian	.60	1.12	.68
Danish	1.32	1.71	1.63
Danzig		1.86	1.86
Dutch	.60	1.36	1.03
French	.90	1.38	1.13
German	.94	1.35	1.12
Greek		1.78	1.78
Italian	.23	1.02	.72
Japanese	1.27	1.52	1.38
Norwegian	1.30	1.73	1.55
Panaman		1.35	1.35
Peruvian	.04	.74	.49
Swedish	.78	2.46	1.79
United States	.98	1.48	1.26
Yugoslav	1.50	1.87	1.75
Averages, April, 1929	.95	1.45	1.25
Averages, April, 1928	.89	1.45	1.23
Averages, April, 1927	.98	1.56	1.33

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of April, 1929, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	3	12,214	$13,017.50	40	215,461	$222,023.75
Ballast	36	202,985	146,149.20	3	13,697	9,861.84
General cargo ships:						
Laden	199	891,114	823,572.45	228	1,046,862	985,527.90
Ballast	18	84,177	60,713.85	6	6,604	4,710.02
Noncargo-carrying ships:						
Naval vessels	2	.....	3,223.50	1	.....	1,691.50
Passenger vessels	.....	.....	.....	1	14,476	10,170.00
Yachts	1	20	14.40	2	566	411.36
Totals	259	1,190,510	1,046,690.90	281	1,297,666	1,234,396.37
Method of propulsion:						
Steam	216	981,255	881,993.80	219	998,547	957,626.63
Motor	42	209,235	164,682.70	61	299,119	275,078.24
Motor schooner	1	20	14.40	1	.....	1,691.50
Totals	259	1,190,510	1,046,690.90	281	1,297,666	1,234,396.37

Of the 435 steam-driven vessels, 298 were oil burning, 135 coal burning, and 2 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of April, 1929. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Aircraft carriers	[1]1	12,700	$6,350.00	.....	.....	.....
Cruisers	[2]2	6,400	3,200.00	[2]2	6,400	$3,200.00
Mine layers	.....	.....	.....	[3]3	6,182	3,091.00
Mine sweepers	[2]2	1,900	950.00	[2]2	1,900	950.00
Storeships	[3]1	3,394	4,242.50	.....	.....	.....
Submarines	[3]6	5,168	2,584.00	[4]4	3,482	1,741.00
Survey ships	[3]1	2,600	1,300.00	.....	.....	.....
Tugs	[2]2	2,000	1,000.00	[2]2	2,000	1,000.00
U. S. Army vessels:						
Launches	[3]1	20	15.00	[3]1	20	15.00
Mine planters	[2]2	2,416	1,208.00	[3]1	1,208	604.00
Transports	[2]2	7,816	9,770.00	[3]1	3,908	4,885.00
Tugs	[2]2	92	69.00	[2]2	92	69.00
Totals, U. S. Government	22	.....	30,688.50	18	.....	15,555.00
Panaman Government vessels:						
Transports	[1]1	101	72.72	[2]2	202	145.44
Vessels for repairs:						
Cable ships	[3]1	831	1,038.75	[3]1	831	1,038.75
Tankers	.....	.....	.....	[3]1	3,975	2,981.25
Grand totals	24	.....	31,799.97	22	.....	19,720.44

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of April, 1929, carried cargo as follows: Atlantic to Pacific, 1,712 tons; Pacific to Atlantic, 322 tons; total, 2,034 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement transiting the Canal during the month of April, 1929. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific	21	201	$198.09	.....
Pacific to Atlantic	20	244	265.35	103
Totals	41	445	463.44	103

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of April, 1929, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving.....tons	106,565	17,693	124,258
Local cargo shipped.....tons	9,718	714	10,432
Transit cargo arriving.....tons	2,705,659	2,728,420	5,434,079
Transit cargo clearing.....tons	2,711,643	2,750,578	5,462,221
Cargo received for transshipment.....tons	44,827	419	45,246
Cargo transshipped.....tons	42,089	391	42,480
"Canal Zone for Orders" cargo:			
Number of receipts issued	96	20	116
Number of withdrawals	558	149	707
Tons received	2,748	170	2,918
Tons withdrawn	3,207	203	3,410
Packages received	7,410	2,198	9,608
Packages withdrawn	8,601	2,049	10,650
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Co	90	.....	90
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company.....tons	27,492	.....	27,492
Coal issued, miscellaneous:			
Panama Canal departments.....tons	122	9	131
U. S. Army, including vessels.....tons	90	.....	90
Individuals and companies.....tons	236	155	391
Transferred to Navy.....tons	164	.....	164
Total sales and issues.....tons	28,104	164	28,268
Coal on hand April 1, 1929.....tons	31,098	.....	31,098
Coal on hand May 1, 1929.....tons	52,562	.....	52,562
Coal received during month.....tons	49,568	.....	49,568
Coal received from Navy.....tons	.....	164	164
Fuel oil issued fron Panama Canal tanks:			
Panama Canal departments.....bbls.	4,651.47	20,246.83	24,898.30
Panama Railroad Company.....bbls.	588.69	.....	588.69
U. S. Army and Navy.....bbls.	.....	100.89	100.89
Individuals and companies.....bbls.	.....	101.19	101.19
Total sales and issues.....bbls.	5,240.16	20,448.91	25,689.07
Fuel oil on hand May 1, 1929.....bbls.	25,710.59	8,280.69	33,991.28
Diesel oil received during April.....bbls.	.....	164.52	164.52
Diesel oil sold during April.....bbls.	70.47	[1]164.52	[2]234.99
Diesel oil on hand May 1, 1929.....bbls.	16,663.64	493.25	17,156.89
Miscellaneous transfers.....bbls.	720.16	13,581.59	14,301.75
Gasoline and kerosene pumped for The Panama Canal.....bbls.	2,094.50	4,694.85	6,789.35
Gasoline pumped for individuals and companies.....bbls.	702.24	6,186.12	6,888.36
Oil pumped for individuals and companies.....bbls.	659,067.58	263,813.56	922,881.14
Oil pumped for U. S. Shipping Board.....bbls.	.....	3,445.00	3,445.00
Oil pumped for U. S. Navy.....bbls.	2,483.00	1,034.00	3,517.00
Total fuel oil, gasoline and kerosene handled.....bbls.	670,378.11	313,248.55	983,626.66
Admeasurement of vessels:			
U. S. Equivalent certificates issued	39	6	45
Measured for Panama Canal net tonnage	15	.....	15
Remeasured for Panama Canal net tonnage	27	4	31
Panama Canal net tonnage corrected	5	6	11
U. S. equivalent tonnage corrected	10	8	18
Services of harbor equipment:			
Tugs, total operating hours	492¾	313¼	706
Launches, total operating hours	1,539	1,910½	3,449½
Revenue from tug service, pilotage, etc.:			
Tug revenue	$15,395.00	$9,783.75	$25,178.75
Pilotage	21,636.00	7,050.00	28,686.00
Seamen	11,898.00	12,888.00	24,786.00
Launch service	2,032.00	3,059.00	5,091.00
Wharfage	17,720.39	4,392.23	22,112.62
Ships measured	170.00	5.00	175.00
Miscellaneous	965.60	912.50	1,878.10
Ships repaired at Panama Canal shops:			
Commercial	71	11	82
U. S. Army and Navy	8	2	10
Panama Canal equipment	5	14	19
Totals	84	27	111

[1] 44.52 barrels handled by the Panama Canal. [2] 114.99 barrels handled by the Panama Canal.

	Cristobal.	Balboa.	Total.
Vessels dry-docked:			
Commercial	6	4	10
U. S. Army and Navy	3	.....	3
Panama Canal equipment	.....	2	2
Totals	9	6	15
Clearances issued	342	251	593
Bills of health issued	339	258	597

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships Entering.						
All vessels, including those transiting Canal.	630	3,528,763	2,165,532	564	3,188,867	1,970,437
Vessels entering port but not transiting Canal	72	364,630	213,077	6	14,516	9,742
Vessels transiting Canal and handling passengers and cargo at terminal ports	128	753,868	460,516	103	596,972	360,487
Ships Clearing.						
All vessels, including those transiting Canal.	633	3,541,431	2,175,614	568	3,218,150	1,991,950
Vessels clearing port but not transiting Canal	71	352,311	206,723	3	8,634	6,178
Vessels transiting Canal and handling passengers and cargo at terminal ports	126	746,943	456,962	103	598,614	360,176

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,772	1,254	3,026	99	155	254
From Pacific ports	296	166	462	390	357	747
Total disembarking	2,068	1,420	3,488	489	512	1,001
Embarking:						
For Atlantic ports	1,567	1,117	2,684	137	288	425
For Pacific ports	264	244	508	373	301	674
Total embarking	1,831	1,361	3,192	510	589	1,099
Remaining on board:						
From Atlantic to Pacific ports	1,281	2,378	3,659	1,436	2,467	3,903
From Pacific to Atlantic ports	2,155	2,428	4,583	2,314	2,306	4,620
From Atlantic to Atlantic ports	1,174	280	1,454	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	8	255	263
Total remaining on board	4,610	5,086	9,696	3,758	5,028	8,786
Total arriving	6,678	6,506	13,184	4,247	5,540	9,787
Total departing	6,441	6,447	12,888	4,268	5,617	9,885

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	259	58	22.4
Pacific to Atlantic	281	76	27.0
Totals	540	134	24.8

In addition to the aforesaid, 55 passenger-carrying vessels called at the port of Cristobal and 1 at Balboa without transiting the Canal, making a total of 190 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of April, 1929:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$3,346.53	$15,578.16	$36,028.40	$359.93	$7,781.18	$63,094.20
Government vessels	134.02	1,312.82	10,300.26	156.31	1,336.77	13,240.18
P. R. R. vessels	2.70	81.64	1,834.87	521.06	364.37	2,804.64
Total sales, April, 1929	3,483.25	16,972.62	48,163.53	1,037.30	9,482.32	79,139.02
Total sales, April, 1928	2,558.75	15,551.34	49,186.92	942.52	8,384.41	76,623.94
Total sales, April, 1927	2,876.18	15,091.60	44,043.03	1,020.00	8,652.71	71,683.52
Sales at Balboa to:						
Commercial vessels	867.35	10,311.50	16,163.87	615.44	3,382.12	31,340.28
Government vessels	507.20	3,032.09	23,186.61	186.39	1,826.13	28,738.42
P. R. R. vessels				23.24		23.24
Total sales, April, 1929	1,374.55	13,343.59	39,350.48	825.07	5,208.25	60,101.94
Total sales, April, 1928	1,816.45	13,085.57	31,787.25	1,657.99	5,129.84	53,477.10
Total sales, April, 1927	1,136.76	13,453.28	38,213.24	659.17	4,186.97	57,649.42

The aggregate sales to Government vessels during the month was $41,978.60; to Panama Railroad vessels, $2,828.06; and to other commercial vessels, $94,434.48, making the total sales to all vessels $139,240.96.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of April, 1929, as compared with the corresponding month in 1928 and 1927:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.[1]					
	North.	South.	Total.	North.	South.	Total.	April 1929.	April 1928.	April 1927.
Gatun	269	237	506	3	5	8	514	508	469
Pedro Miguel	256	230	486	7	14	21	507	540	488
Miraflores	257	230	487	8	15	23	510	532	478
	Number of vessels put through locks.								
Gatun	280	260	540	45	57	102	642	613	582
Pedro Miguel	282	259	541	68	72	140	681	648	606
Miraflores	282	259	541	70	75	145	686	647	606

[1] Includes tolls-paying launches under 20 tons.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	52	47	47
Panama Canal equipment	11	50	55
Launches under 20 tons	33	37	37
Panaman Government vessels	3	3	3
Vessels for repairs	3	3	3

The total consumption of water for lockages and loss in leakage was as follows in April, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,079,080,000	1,333,090,000	1,390,370,000
Leakage	30,000,000		20,000,000
Totals, April, 1929	1,109,080,000	1,333,090,000	1,410,370,000
Totals, March, 1929	1,239,910,000	1,496,020,000	1,516,240,000
Totals, April, 1928	1,643,700,000	1,525,510,000	1,665,180,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of April, 1929, are shown in comparative form in the following tabulation:

	April.		April—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	743	785	3,140	281	987
Maximum momentary discharge for the month	2,038	3,537	[1]29,200	.....	.....
Gatun Lake watershed, total yield	1,116	1,007	6,263	305	1,879
Gatun Lake watershed, net yield	238	109	5,400	—706	1,007
Draft on Gatun Lake for lockages and power	2,464	2,648	2,648	[2]1,019	[2]1,951

[1] April 3, 1915. [2] April, 1914, not included.

The total yield of the Gatun Lake watershed was 41 per cent below the 16-year April average, or 1,116 c. f. s., compared with an average of 1,879 c. f. s. Maximum and minimum total yields of record for April are 6,263 c. f. s. in 1915 and 305 c. f. s. in 1926, respectively. The lake varied from elevation 84.19 feet on the 1st to 82.85 feet on the 30th, averaged 83.50 feet, and ended at elevation 82.87 feet. Miraflores Lake varied from elevation 54.28 feet on the 3d to 53.25 feet on the 27th, averaged 53.89 feet, and ended at elevation 53.60 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 23d and 30th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,325,100 kilowatt hours, and the computed water consumption was 3,972,626,137 cubic feet. A 4-minute interruption to power service occurred on the 29th due to loss of excitation caused by accidental tripping out of exciter circuit breaker. This station carried full load throughout the month. The Miraflores Diesel-electric station had a gross generator output of 2,908,000 kilowatt hours, with a fuel oil consumption of 60.79 barrels. Overhaul of Diesel engines was conducted throughout the month.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were completed on 37 vessels during the month. There were 374 work orders issued during the month, as compared with 305 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 84 vessels at Cristobal and 27 at Balboa. Nine vessels were dry-docked at Cristobal and 6 at Balboa. General overhaul on the U. S. S. *Swan* was completed during the month. The transfer of machinery from old hull of Panama Railroad pile driver *No.* 2 to new hull was completed late in April. The Mexican cruiser *Nicolas Bravo* was docked for cleaning, painting, and rebricking of furnaces. Work was completed during the month.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. On the Madden Road, 9,500 linear feet were cleared, 25,165 cubic yards of material were moved in connection with the grading, and 350 feet of retaining wall were constructed. At the site of the Madden Dam the operation of diamond drills was continued throughout the month.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 730,609,750 gallons.

DREDGING DIVISION.

West Lirio slide showed movement during the entire month of April. Two dipper dredges worked on this slide during the month, excavating 144,650 yards of material. Cucaracha, South Cucaracha, East and West Culebra slides showed no movement during the month. There were no other slides and no delays to shipping during the month.

The total excavation during April was 642,390 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Project No. 2	700	12,100	12,800
Lirio Slide	28,950	115,700	144,650
Canal prism, Pacific entrance—			
Project No. 1 (extension)	92,000	.....	92,000
Maintenance	188,700	.....	188,700
Balboa inner harbor—			
Project No. 1	.....	72,700	72,700
Maintenance	40,200	5,600	45,800
Plant excavation:			
Albrook Field	85,200	.....	85,200
Dredging sand at Chame	540	.....	540
Totals	436,290	206,100	642,390

Four thousand four hundred linear feet of dike were completed and 8,500 cubic yards of material were pumped into the filling project at Albrook Field.

The ferry crossing at the north end of Pedro Miguel locks operated 30 days during the month. Four hundred and ninety-eight trips were made, and 269 Panama Canal, 166 U. S. Army, and 4,958 other vehicles, a total of 5,393, were ferried across the Canal.

AIRPLANE SERVICES.

Following the issuance of Executive Order No. 4971, dated September 28, 1928, authorizing the Secretary of State to receive and pass upon applications for the privilege of operating commercial aircraft between the Canal Zone and foreign countries; of Executive Order No. 5047, dated February 18, 1929, establishing regulations to control aerial navigation in the Canal Zone; and of regulations to govern air navigation in the Canal Zone, promulgated by the Secretary of State under date of February 26, 1929, two major air services with terminals in the Canal Zone were begun in April, 1929.

Effective April 2, 1929, the Pan-American Airways, Inc., inaugurated a tri-weekly air-mail service between Cristobal and Miami, Florida. This service was originally begun in February and was continued on a fortnightly basis until the establishment of the tri-weekly service last month. This company is carrying only mail at present but it is understood that passenger accommodations will be provided within a short time.

A weekly transport service was established on April 17, 1929, from the Canal Zone to cities in the Republic of Colombia by the Sociedad Colombo-Alemana de Transportes Aeros (*Scadta*).

Service of Foreign Air-Mail Route No. 9, with dispatches from Cristobal to Esmeraldas and Guayaquil in Ecuador, and to Talara, Trujillo, Lima, and Mollendo in Peru, is scheduled to be established this month.

Postal receipts for the first ten months of the current fiscal year are more than 26 per cent greater than the receipts for the first ten months last year and greater than the receipts for the whole of the past fiscal year. The sale of air-mail stamps accounts for a considerable portion of this increase.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on April 30, 1929, totaled 21,836, composed of 7,550 Americans, 2,747 of whom were men, 2,237 women, and 2,566 children; 242 Europeans, 100 of whom were men, 37 women, and 105 children; and 14,044 West Indians, 4,200 of whom were men, 2,606 women, and 7,238 children. The total number of persons in quarters on April 30, 1928, was 21,362.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of April 17, 1929, with a comparison of the working force for the preceding month and for April, 1928:

	As of April 17, 1929.			Total employees.	
	Gold.	Silver.	Total.	March 1929.	April 1928.
Operation and Maintenance:					
Office	44	66	110	104	79
Electrical	151	172	323	349	354
Municipal Engineering	118	1,750	1,968	2,000	824
Lock Operation	296	1,093	1,389	1,413	898
Dredging	192	995	1,187	1,165	1,064
Mechanical	416	819	1,235	1,232	1,270
Marine	211	755	966	856	823
Fortifications	30	442	472	488	421
Totals	1,458	6,092	7,550	7,607	5,733
Supply Department:					
Quartermaster	201	1,833	2,034	2,125	1,904
Subsistence	8	109	117	126	120
Commissary	220	1,279	1,499	1,504	1,328
Cattle Industry	5	157	162	163	225
Hotel Washington	8	111	119	118	110
Transportation	72	225	297	289	263
Totals	514	3,714	4,228	4,325	3,950
Accounting Department	196	6	202	201	204
Health Department	268	826	1,094	1,076	1,233
Executive Department	518	297	815	813	794
Totals	982	1,129	2,111	2,090	2,231
Panama Railroad Company:					
Superintendent	47	297	344	312	299
Transportation	63	127	190	196	180
Receiving and Forwarding Agency	100	1,526	1,626	1,836	1,906
Coaling Stations	48	371	419	384	406
Totals	258	2,321	2,579	2,728	2,791
Grand totals, April, 1929	3,212	13,256	16,468	.....	.....
Grand totals, March, 1929	3,202	13,548	.....	16,750	.....
Grand totals, April, 1928	3,015	11,690	.....	.....	14,705

Additions to the gold force on the Isthmus in April were as follows: Employed in the United States, 12; reemployed in the United States, 6; employed on the Isthmus, 26; reemployed on the Isthmus, 14; total, 58. Separations from the gold force totaled 45, as follows: Resigned, 27; discharged, 15, retired 1; died, 2. At the end of the month there were on file 220 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 146 deaths occurred during the month of April, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 13.53 per 1,000 population. The leading causes of death were: Pneumonia (broncho and lobar), 25; tuberculosis (various organs), 24; organic diseases of the heart, 18; nephritis (acute and chronic), 11; and apoplexy, 8. There were 7 deaths from diarrhea and enteritis, 4 from cancer, and 1 each from measles, diphtheria and amebic dysentery. There were 18 deaths among nonresidents. These are not included in the above statistics.

There were 277 live births, and 18 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 27.33 per 1,000 population. Deaths among children under 1 year of age numbered 26, giving an infant mortality rate based on the number of live births reported, of 93.86.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during April was 111, of whom 28 were employees (3 white and 25 colored), 14 were members of employee's families (1 white and 13 colored), 11 were Canal Zone agriculturists, 15 were other civilian nonemployees, and 43 were Army and Navy personnel. Of the 42 employees and members of employee's families, 38 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick. There was one death from malaria among residents, the child of a Canal Zone settler.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $1,591,643.97 of which $1,578,200.37 was for the

Department of Operation and Maintenance and $13,443.60 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to $47,036.38.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of March, 1929, as compared with March, 1928, and the figures for the first nine months of the current fiscal year as compared with the same period in the fiscal year 1928.

It is impossible to submit the figures for the month of April at the time of writing this report, since all charges, etc., involved in the accounting have not been completed:

	March 1929.	March 1928.	To end of March.	
			This year.	Last year.
Tolls	$2,344,009.79	$2,223,457.42	$20,420,498.10	$20,620,451.02
Other receipts	322,693.24	310,455.98	2,962,537.13	2,662,758.88
Total transit revenues	2,666,703.03	2,533,913.40	23,383,035.23	23,283,209.90
Total transit expenses	1,282,843.26	1,056,202.26	9,797,232.14	9,066,786.31
Net transit revenues	1,383,859.77	1,477,711.14	13,585,812.09	14,216,423.59
Three per cent capital charge	614,858.61	612,993.55	5,542,664.67	5,503,530.30
Transit surplus	769,001.16	864,717.59	8,043,147.42	8,712,893.29
Business revenues	1,556,098.68	2,098,491.48	12,879,863.57	12,420,707.28
Business expenses	1,452,110.54	2,032,766.76	12,070,439.92	11,720,665.05
Net business revenues	103,988.14	65,724.72	809,423.65	700,042.23
Three per cent capital charge	61,550.27	61,208.19	587,462.15	587,592.69
Business surplus	42,437.87	4,516.53	221,961.50	112,449.54
Combined revenues	4,222,801.71	4,632,404.88	36,262,898.80	35,703,917.18
Combined expenses	2,734,953.80	3,088,969.02	21,867,663.06	20,787,451.36
Net revenues	1,487,847.91	1,543,435.86	14,395,235.74	14,916,465.82
Three per cent capital charge	676,408.88	674,201.74	6,130,126.82	6,091,122.99
Combined surplus	811,439.03	869,234.12	8,265,108.92	8,825,342.83

Respectfully,

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending May 25, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cristobal	Panama R. R. S. S. Line		May 12		873
Cali	North German Lloyd		May 12		339
Cid	Pacific Steam Nav. Co		May 12		159
Martha	H. C. Stevenson		May 12		286
Ulua	United Fruit Co	May 12	May 12	29½	121
Cartago	United Fruit Co		May 13		262
Salvador	Pacific Steam Nav. Co		May 13		1,050½
Brielle	Royal Neth. S. S. Co	May 13	May 13	11	1
Maravi	United Fruit Co	May 13	May 13	(1)	861
Teno	Chilean S. S. Line	May 13	May 13	15	(2)
Jamaica	Pacific Steam Nav. Co	May 13		828	
Galicia	Hamburg-American Line	May 13	May 14	159	51
Camden	United Fruit Co	May 13	May 14	9,469	(2)
Toloa	United Fruit Co	May 13	May 15	397	46
Oranian	Leyland S. S. Line	May 13	May 17	(1)	213
Mayebashi Maru	Nippon Yusen Kaisha	May 14	May 14	101	(2)
Saint Jean	French Line	May 14	May 14	53½	49
Colombia	Panama Mail S. S. Co	May 14	May 15	514	167
Ballena	Pacific Steam Nav. Co	May 14	May 16	(1)	187½
Baralt	Royal Neth. S. S. Co	May 15		500	
Venezuela	Panama Mail S. S. Co	May 15	May 16	1,100	516
Santa Marta	United Fruit Co	May 15	May 16	784	234

[1] No cargo discharged. [2] No cargo laded.

Name of vessel.	Line or charterer	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Flandre	French Line	May 15	May 16	280	519
Magdalena	Hamburg-American Line	May 15	May 16	226	(2)
Alkmaar	Royal Neth. S. S. Co.	May 15	May 16	246	168
Alvarado	Pacific Steam Nav. Co	May 15	May 16	374	311
Nebraska	Pacific Steam Nav. Co	May 15	May 16	(1)	409
Mississipi	French Line	May 16	May 16	260	21
Zenon	French Line	May 16	May 17	65	(2)
Manizales	North German Lloyd	May 16	May 17	558	(2)
Pilot	Hamburg-American Line	May 16	May 17	130	90
Palatia	Hamburg American Line	May 16	May 17	58	122
Macabi	United Fruit Co	May 16	May 17	630	47
Saramacca	United Fruit Co	May 17	May 17	919	350
Suriname	United Fruit Co	May 17	May 17	175	146
San Jose	United Fruit Co	May 17	May 18	1,015	467
Drechtdijk	Holland-American Line	May 17	May 18	35	195
Rapot	North German Lloyd	May 17	May 18	322	468
Amapala	Stand. Fruit S. S. Co	May 17	May 18	411	583
Parismina	United Fruit Co	May 18		559	
Minden	North German Lloyd	May 18		631	
Visurgis	North German Lloyd	May 18		144	
Margarethe Cords	Colombian Mar. Co	May 18	May 18	54	(2)
Arkansas	French Line	May 18		147	
Wanks	Stand. Fruit S. S. Co	May 18		196	
Abraham Lincoln	Norway-Pacific Line	May 18		281	
Gracia	Donaldson S. S. Line		May 19		315
Baralt	Royal Neth. S. S. Co		May 19		228
Arkansas	French Line		May 19		237
Wanks	Stand. Fruit S. S. Co		May 19		3½
Abraham Lincoln	Norway-Pacific Line		May 19		222
Magdalena	Hamburg-American Line	May 19	May 19	(1)	705
Toloa	United Fruit Co	May 19	May 19	(1)	230
Atlantian	Leyland S. S. Line	May 19	May 20	639	(2)
Murla	North German Lloyd	May 19	May 20	104	242
Parismina	United Fruit Co		May 20		79½
Minden	North German Lloyd		May 20		577
Santa Maria	Grace Line	May 20	May 20	6	(2)
Schwaben	North German Lloyd	May 20	May 20	(1)	135
Waunta	Stand. Fruit S. S. Co	May 20	May 21	592	½
Montevideo Maru	Osaka Shosen Kaisha	May 20	May 21	98	(2)
Heinrich Arp	Colombian Mar. Co	May 20	May 21	288	(2)
Swiftsure	C. D. Mallory & Co	May 20	May 22	11,873	(2)
Kinderdijk	Holland-American Line	May 20	May 23	432	275
Calamares	United Fruit Co	May 21	May 22	823	85
Santa Cruz	Grace Line	May 21	May 21	(3)	144
Saramacca	United Fruit Co	May 21	May 21	11	37
William M.	R. Feuillibois	May 21	May 21	(1)	19
Jamaica	Pacific Steam Nav. Co		May 21		813
Lobos	Pacific Steam Nav. Co	May 21	May 22	52	187
Mayan	Caribbean S. S. Co	May 21	May 22	323	(4)
Acajutla	Pacific Steam Nav. Co	May 22		863	
Canadian Highlander	Can. Nat. Steamships	May 22	May 22	38	(2)
London Importer	Furness, Withy & Co	May 22	May 23	(1)	276
Knute Nelson	Norway-Pacific Line	May 22	May 22	(1)	288½
Orbita	Pacific Steam Nav. Co	May 22	May 23	59	275
Metaren	United Fruit Co	May 22	May 23	310	122
Virgilio	Italian Line	May 22	May 24	486	(2)
Limon	United Fruit Co	May 22	May 24	976	325
St. Theresa	United Fruit Co	May 22		1,037	
Ancon	Panama R. R. S. S. Line	May 22		4,163	
Linda S.	R. Feuillebois	May 23	May 23	(1)	36
Visurgis	North German Lloyd		May 23		1,295
Ebro	Pacific Steam Nav. Co	May 23	May 24	50	1
Manizales	North German Lloyd	May 23	May 25	180	370
Saramacca	United Fruit Co	May 24	May 25	260	395
Coppename	United Fruit Co	May 24	May 25	687	62
Atlantida	Stand. Fruit S. S. Co	May 24	May 25	111	880
Adolf von Baeyer	Hamburg-American Line	May 24		21	
Buenos Aires	Spanish Line	May 24		191	
Macabi	United Fruit Co	May 24	May 25	11	878
Heredia	United Fruit Co	May 25		634	
Durazzo	Hamburg-American Line	May 25		283	
Wanks	Standard Fruit S. S. Co	May 25		177	
Carare	Elders & Fyffes	May 25	May 25	5	(2)
Uribe	Estrada G. Hermanos		May 25		470

[1] No cargo discharged. [2] No cargo laded. [3] Four packages. [4] Three cases.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, May 25, 1929.

THROUGH THE CANAL—ATLANTIC to PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Gracia	18	9.05	19	6 12	19	15 51	19	17 40	British	Donaldson Line	415 0	54 3	22 6	Glasgow-England.	Vancouver, B. C.	General, bananas	1,440	6,899	4,842
Fernbank [2]	19	6 25	19	7 20	19	18 02	19	19 06	Norwegian.	Fearnley & Eger	382 7	53 4	24 0	Houston, Texas.	Shanghai, China.	(5)	6,999	6,112	4,265
Baychimo	19	8 40	19	8 55	19	18 11	20	1 26	British	Hudson Bay Co	229 0	35 0	15 6	Andresson, Eng.	Vancouver, B. C.	Ballast		1,362	883
Baralt	15	18 40	19	12 10	19	19 41	19	21 08	Dutch.	Royal Neth. S. S. Co.	202 0	33 0	12 10	Cristobal, C. Z	Guayaquil, Ecuad'r	General	229	1,183	742
Creole Jefe [1]	19	1 00	19	12 40	19	19 45			Venezuelan	Creole Petroleum Co.	325 0	55 0	10 0	Las Piedras, Venez.	Balboa, C. Z	Ballast			
Sunoil [1 2]	19	14 25	19	14 35	19	21 33	19	22 49	American	Sun Oil Co	180 6	66 0	20 0	Chester, Pa.	Los Angeles, Calif	Ballast		9,610	6,396
Tashmoo	19	14 10	19	14 45	19	22 08	19	23 56	American	Charles Nelson & Co.	324 0	46 2	19 0	Charleston, S. C.	Los Angeles, Calif	General	2,800	3,984	2,628
W. L. Steed [1]	19	11 25	19	15 26	19	23 04	20	00 15	American	American Oil Co	116 8	56 1	22 5	Baltimore, Md	Los Angeles, Calif	Ballast		6,751	4,795
Abraham Lincoln [2]	18	23 30	19	20 15	20	2 06	21	22 10	Norway	Fred Olsen & Co	436 0	56 0	18 00	Oslo, Norway	Vancouver, B. C.	Bananas, general	2,041	8,005	5,953
Fernlane [2]	19	20 20	20	6 10	20	13 45	20	19 40	Norwegian.	Fern Line	376 5	53 8	25 8	Pt. Arthur, Tex.	Sydney, Australia.	Kerosene	7,359	6,264	4,681
Amerikaland [2]	19	23 55	20	7 20	20	16 27	20	22 43	Swedish	Isthmian S. S. Lines	409 7	54 2	25 2	Baltimore, Md	Vancouver, B. C.	Steel, general	7,867	6,616	4,614
Otterpool	20	6 10	20	7 30	20	17 28	20	18 35	British	Ore S. S. Corp	561 0	72 0	32 0	Baltimore, Md	Cruz Grande, Chile	Ballast		15,560	4,496
Orleans	20	6 12	20	8 35	20	18 18	20	19 40	American	Canadian Transp. Co.	390 0	55 0	13 11	Baltimore, Md	Vancouver, B. C.	Ballast		5,926	4,262
Calcutta Maru	20	7 40	20	8 45	20	19 12	20	20 34	Japanese	Quaker Line	395 0	55 0	22 5	Wilmington, Del.	Seattle, Wash	General	4,318	7,330	5,233
Schwaben	20	6 25	20	11 55	20	20 02	20	21 26	German	Nippon Yusen Kaisha	400 0	54 5	22 0	Baltimore, Md	Kobe, Japan	General	5,130	5,790	4,178
Minden	17	23 40	20	13 10	20	20 50	20	22 43	German	North German Lloyd	491 5	63 8	23 10	Hamburg, Germany	Vancouver, B. C	(6)	5,123	10,002	6,743
Gudrun Maersk	20	8 50	20	14 35	20	22 34	21	00 04	Danish	North German Lloyd	359 10	50 10	22 6	Bremen, Germany	Champerico, Guat	General	3,183	4,822	3,272
Edgar F. Luckenbach	20	18 40	20	19 05	21	2 16	21	3 21	American	Isbrandtsen Moller & Co.	361 7	51 4	21 8	Chester, Pa.	Yokohama, Japan	General	3,825	4,961	3,477
Aktion	20	8 05	20	20 20	21	4 16	21	5 25	British	Luckenbach Line	425 0	57 3	20 0	New Orleans, La.	Seattle, Wash	General	3,965	8,568	6,648
Montevideo Maru [2]	20	14 40	21	6 00	21	19 04	21	20 38	Japanese	Can. Nat. Steamships	177 0	24 0	9 4	Halifax, N. S.	Prince Rupert, B.C.	Ballast		391	214
Jamaica	13	21 00	21	7 15	21	19 09	21	20 38	British	Osaka Shosen Kaisha	430 0	56 0	22 6	Buenos Aires, Arg.	Kobe, Japan	(6)	3,670	7,875	5,821
Hazel Branch	20	17 40	21	7 25	21	20 04	22	00 51	British	Pacific Steam Nav. Co	229 9	34 0	13 11	Cristobal, C. Z	Champerico, Guat.	General	814	1,187	622
Theodore Roosevelt [2]	20	21 25	21	8 35	21	21 48	22	1 12	Norwegian.	F. & W. Ritson	418 0	57 0	18 1	Liverpool, England	Valparaiso, Chile	General	2,000	5,208	3,578
Georgian	21	3 15	21	9 20	21	22 23	21	23 57	American	Fred Olsen & Co	425 0	55 0	26 7	Oslo, Norway	Vancouver, B. C.	General	8,886	7,593	5,637
Balcraig	21	7 15	21	10 45	21	23 15	22	00 51	British	Quaker Line	386 8	52 2	22 6	New York, N. Y.	Tacoma, Wash	General	5,200	5,719	4,023
Santa Cruz	21	5 45	21	12 40	22	00 24	22	1 52	American	Balcraig S. S. Co	376 0	50 0	25 8	Galveston, Tex.	Melbourne, Aus'lia.	Sulphur	6,075	5,028	3,600
Zrinski	21	10 10	21	14 00	22	00 59	22	2 20	Yug. slav	Grace Line	384 0	50 2	20 3	New York, N. Y.	Valparaiso, Chile	General	2,967	5,534	3,868
El Ciervo [1]	21	18 05	21	18 15	22	1 44	22	3 04	British	Baburizza & Co	399 8	53 0	23 0	Blyth, England	Antofagasta, Chile.	Coal, general	6,960	6,207	4,536
Swiftsure [1]	20	13 15	22	7 05	22	15 42	22	17 05	American	Anglo-Read. Oilfields	407 0	57 0	19 0	Philadelphia, Pa	La Libertad, Ecua.	Ballast		6,046	4,326
Vindeggen	21	20 45	22	7 15	22	16 52	22	18 36	Norwegian.	Arrow Oil Co	464 0	69 0	17 6	Curacao, D. W. I.	Los Angeles, Calif	Ballast		8,473	6,070
Santa Isabel	22	2 58	22	7 35	22	16 56	22	21 26	American	Isbrandtsen Moller & Co.	330 0	46 0	20 10	Tampico, Mexico	La Paz, Mexico	Gas, kerosene	3,500	3,517	2,268
Kentuckian	22	6 55	22	10 00	22	17 50	22	18 56	American	Isthmian S. S. Lines	251 0	43 0	23 6	Baltimore, Md.	Honolulu, T. H.	General, tinplate	3,006	2,823	1,740
Andrea F. Luckenbach	22	7 15	22	10 33	22	19 45	22	20 50	American	Amer.-Hawaiian Line	414 5	53 7	20 2	Boston, Mass.	Seattle, Wash.	General	2,870	7,049	4,941
										Luckenbach Line	498 0	68 0	23 0	Boston, Mass.	Seattle, Wash.	General, steel	6,124	11,487	8,762

[1] Tanker. [2] Motor ship. [3] South for dry-docking. [4] Phosphates and cotton. [5] Iron, oil, and general. [6] Meat, oil, and general.

Galveston [7]	22	9	30	22	12	25	22	20	46			American	U. S. Navy	292.0	44.0	18.4	Cristobal, C. Z.	Balboa, C. Z.				
Clemons [8]				22			22	9	42			American	J. S. Perino				Cristobal, C. Z	Gatun, C. Z.	Ballast		14	14
Kinderdijk	20	17	38	23	6	00	23	13	27	23	15	35	Dutch	Holland-American Line	469.4	58.4	20.0	Rotterdam, Holland	Vancouver, B. C.	General, bananas	3,309	8,515	6,060
Don. Benjamin Squella	22	6	15	23	7	25	23	15	10	23	17	00	Chilean	Cia Min. y Ind. de Chile	275.0	41.0	13	0	Immingham, Eng.	Valparaiso, Chile	Ballast		2,312	1,417
Point Sur	22	22	25	23	7	10	23	15	06	23	16	20	American	Gulf-Pacific Line	335.0	46.0	21	0	New Orleans, La.	Seattle, Wash	General	2,338	3,984	2,612
Visurgis	18	17	05	23	8	10	23	19	07	23	21	15	German	North German Lloyd	229	7	37	8	15	0	Cristobal, C. Z.	Puntarenas, C. R.	General	2,200	1,406	855
D. G. Scofield [9]	22	20	50	23	8	25	23	16	47	24	21	09	American	Standard Shipping Co.	439.0	58.0	29	0	Baytown, Tex.	Los Angeles, Calif.	Fuel oil	10,750	8,698	5,935
Orbita	22	16	30	23	10	10	23	18	02	23	19	18	British	Pacific Steam Nav. Co.	550.3	67.3	29.11	Liverpool, England	Talcahuano, Chile	General	4,531	16,844	11,731
Sun [1] [2]	23	00	10	23	11	05	23	19	11	23	20	40	American	Sun Oil Co	480	6	66.0	21	3	Chester, Pa	Los Angeles, Calif.	Ballast		9,620	6,476
Empire Arrow [1]	23	1	30	23	12	05	23	20	00	23	21	15	American	Standard Transp. Co.	468	3	62	7	20.9	New York, N. Y.	Los Angeles, Calif.	Ballast		9,841	6,946
London Importer	22	6	00	23	13	12	23	20	48	23	21	58	British	Furness, Withy & Co.	450	4	58.0	18	10	Glasgow-England	Vancouver, B. C.	General, bananas	1,540	8,529	5,993
West Nilus	23	3	45	23	14	05	23	22	50	24	00	14	American	McCormick S. S. Co	410	5	54.3	18	0	Rosario, Argentine	Vancouver, B. C.	General	2,757	6,581	4,989
Ferndale [2]	23	4	35	23	15	15	23	23	40	24	1	03	Norwegian	Fern Line	382	7	53.4	24	10	Boca Grande, Fla	Yokohama, Japan	Phosphates	7,210	6,082	4,222
Kuma Maru	23	10	20	23	16	05	24	00	24	24	1	45	Japanese	Nippon Yusen Kaisha.	405.0	53.0	26.0	Baltimore, Md.	Kobe, Japan	General	7,068	6,962	4,967
Ciricito [8]				23			23	8	14				American	Stand. Fruit S. S. Co.					Cristobal, C. Z.	Gatun, C. Z.	(?)		8	8
Virgilio [2]	22	15	02	24	6	04	24	15	56	24	21	44	Italian	Italian Line	484.0	61	8	20	16	Genoa, Italy	Valparaiso, Chile	General	1,245	12,941	9,329
Ebro	23	22	15	24	9	15	24	17	35	24	19	00	British	Pacific Steam Nav. Co	450.0	57.0	25	6	New York, N. Y.	Talcahuano, Chile	General	3,784	9,291	6,301
Francis E. Powell [1]	24	9	25	24	10	15	24	19	30	25	00	31	American	Atlantic Refining Co	431.0	59	2	20	0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,860	5,101
San Manuel [1]	24	10	20	24	10	30	24	21	15	25	2	00	British	Anglo-Mexican Pet. Co.	421.0	52	3	25	1	Minatitlan, Mex.	Valparaiso, Chile	(10)	7,652	6,183	4,343
Mahout	24	13	15	24	13	30	24	22	12	25	4	05	British	Com'lth & Dom. Line.	470.0	62.0	26.0	New York, N. Y.	Sydney, Australia.	General	8,334	8,832	5,968
Hampton Roads [1]	24	15	15	24	15	25	24	23	50	25	1	20	American	Richfield Oil Co	430.0	59.0	17.0	Baltimore, Md	Los Angeles, Calif	Ballast		8,093	5,347
Eurana	24	17	20	24	17	30	25	00	54	25	5	48	American	Isthmian S. S. Lines	399	7	56	2	26	6	Mobile, Ala	Vancouver, B. C.	Iron, steel	8,412	7,381	5,595
Algonquin [1]	24	18	15	24	18	30	25	1	35	25	3	30	American	Standard Transp. Co.	435.0	56.0	19.0	Portland, Me.	Los Angeles, Calif.	Ballast		7,602	5,337
Denver [7]	23	8	45	25	6	15	25	13	50				American	U. S. Navy	292.0	44.0			Nicaragua	Balboa, C. Z				
Manizales	23	14	15	25	6	00	25	13	54	25	16	00	German	North German Lloyd	216.0	33.0	13	3	Cristobal, C. Z	Guayaquil, Ecuad'r.	General	500	1,132	741
Tuscaloosa City	24	19	20	25	7	50	25	15	13	25	16	35	American	Isthmian S. S. Lines	424.2	56.2	26.0	Baltimore, Md.	Shanghai, China.	General	8,122	7,611	5,450
Dochet	25	3	25	25	8	50	25	15	56	25	17	05	American	Redwood Line	386.8	52.2	18.3	Mobile, Ala	San Francisco, Cal.	General	3,500	5,705	4,167
Uribe	4	16	45	25	8	25	25	17	47	25	18	55	Colombian	Colombian Mar. Co.	227.4	32.0	12.8	Cristobal, C. Z.	Buenaventura, Col.	General	460	1,154	663
Herman Falk [1] [2]	25	3	45	25	9	20	25	17	51	25	18	55	American	Oil Transport Co	431.0	59.9	20.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,862	5,049
Texmar	25	7	08	25	10	38	25	18	44	25	20	05	American	Calmar S. S. Corp	410.0	54.0	24.3	Baltimore, Md.	Seattle, Wash	Steel, general	7,479	6,567	4,909
Cuyama [1]	24	17	12	25	12	15	25	19	26	25	20	54	American	U. S. Navy	455.0	56.0	22.6	Cristobal, C. Z	Los Angeles, Calif.				
Fort Armstrong	25	18	20	25	19	30	26	3	39	26	4	36	American	Charles Nelson & Co.	324.0	46.2	17.0	Norfolk, Va.	San Francisco, Cal.	General	2,235	3,984	2,628
Hamburg Maru	25	18	25	25	20	00	26	12	39	26	14	15	Japanese	Osaka Shosen Kaisha	400.0	54.0	24.0	Houston, Tex.	Dairen, China	(11)	6,806	6,094	4,301

[1] Tanker. [7] Cruiser. [8] Launch. [9] Towing barge. [10] Kerosene and gasoline. [11] General, cotton, and sugar.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Manchester Civilian	18	20	50	19	1	43	19	10	37	19	14	50	British	Moore & McCormack.	385.0	52.0	24.0	Iquique, Chile.	Charleston, S. C.	Nitrates	7,410		
Ethelwolf	18	21	15	19	3	00	19	11	47	19	13	25	British	Harrowing S. S. Co	354.8	50.1	23.6	Portland, Oreg	Valencia, Spain.	Wheat	6,500	4,856	3,668
Santore	19	3	15	19	4	20	19	13	00	19	13	00	American	Ore S. S. Corp	449.1	57.2	29.3	Cruz Grande, Chile	New York, N. Y.	Iron ore	11,614	7,808	5,139
Murla	19	10	15	19	11	28	19	19	05	20	13	25	German	North German Lloyd	449.2	58.1	24.6	Talcahuano, Chile	Hamburg, Germany	General	8,012	7,756	5,378
Pacific	19	11	15	19	12	02	19	19	45	19	19	45	American	Argonaut S. S. Co	399.7	56.2	25.0	Everett, Wash	Boston, Mass	Lumber	7,879	6,517	4,723
Los Angeles [2]	10	11	55	19	12	51	19	20	00	19	23	10	German	Hamburg-American Line	432.3	59.1	26.4	Vancouver, B. C.	Hamburg, Germany	General	7,628	8,454	6,344
Santa Cecilia	19	22	55	20	00	43	20	12	20	20	12	20	American	Nautilus S. S. Co	404.6	53.9	26.4	San Francisco, Cal.	Baltimore, Md.	Lumber, general	6,590	6,745	4,562
Absaroka	19	23	59	20	2	24	20	13	45	20	13	45	American	McCormick S. S. Co	409.6	54.1	24.6	Portland, Oreg.	Baltimore, Md.	Lumber, general.	7,727	6,627	4,993

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC. Continued.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Lio [1] [12]	19	23 30	20	3 35	20	14 10	20	14 19	American	Standard Transp. Co.	431 0	59 2	26 6	Los Angeles, Calif	Bayonne, N. J.	Gasoline	9,520	7,846	5,112
Santa Maria [12]	19	12 15	20	4 10	20	12 50	20	15 16	American	Grace Line.	466 0	64 0	27 0	Talcahuano, Chile	New York, N. Y.	[15]	5,701	10,626	6,680
Galveston [13]			20	5 55	22	9 30	22	12 25	American	U. S. Navy	202 0	41 0	17 2	Balboa, C. Z	Cristobal, C. Z.				
Heinrich Arp	20	5 00	20	6 50	20	15 35	21	8 00	German	Columbian Mar. Co.	237 1	37 5	16 0	Buenaventura, Col.	New York, N. Y.	[16]	1,267	1,718	1,167
Spinanger [1] [12]	20	7 35	20	8 20	20	16 40	20	16 40	Norwegian.	Westfal, Larsen & Co	441 6	57 4	27 7	Los Angeles, Calif	Land's End, Eng.	Gasoline	9,652	7,616	5,268
Raranga	20	9 45	20	10 40	20	18 55	21	00 25	British	Shaw, Savill & Albion	478 0	63 2	26 0	Gladstone, N. Z	Glasgow, Scotland	Frozen, general.	4,904	11,070	7,931
Willmoto	21	00 01	21	1 05	21	9 15	21	9 15	American.	Williams S. S. Line	393 0	54 2	27 1	Bellingham, Wash	New York, N. Y.	Lumber	6,350		
Rio Diamante	21	00 50	21	2 19	21	11 52	21	12 45	British	Thompson S. S. Co	400 0	56 2	25 0	Portland, Oreg	Hampton Roads [17]	Wheat	8,178	6,359	4,583
Lobos [12]	19	11 45	21	3 39	21	13 30	22	00 55	British	Pacific Steam Nav. Co	435 0	54 2	26 0	Corral, Chile	Hull, England.	General	8,080	7,151	4,756
Trifun	21	4 00	21	6 31	21	14 50	21	16 55	German	Kauffahrtei A. G	442 3	55 5	28 0	Vancouver, B. C.	Hull, England.	Lumber, wheat.	9,400	6,674	4,676
King Robert	21	6 15	21	7 35	21	15 40	21	15 10	British	Dodd-Thomson & Co	400 6	53 0	26 1	Vancouver, B. C.	Avonmouth, Eng	Wheat	8,300	6,051	4,212
Westmoor [12]	21	6 30	21	8 17	21	16 45	22	11 24	British	W. Runciman & Co.	375 0	52 5	25 4	Vancouver, B. C.	United Kingdon	Wheat	7,480	6,039	4,633
Alaskan	21	6 40	21	9 26	21	17 50	21	17 56	American	Amer.-Hawaiian Line	415 0	53 7	25 6	Portland, Oreg	Boston, Mass	General	6,166	7,380	5,339
Canadian Miller	21	8 57	21	10 32	21	18 10	21	21 20	British	Can. Nat. Steamships	400 3	52 3	25 6	Vancouver, B. C.	Montreal, Canada	Lumber, general	6,311	5,892	4,186
Svealand [12]	21	10 27	21	11 26	21	20 15	21	20 15	Swedish	Axel Brostrom & Son	501 1	72 2	34 0	Cruz Grande, Chile	New York, N. Y.	Iron ore	21,850	15,425	4,421
Resolute	21	6 00	21	12 09	21	19 28	21	20 15	German	Hamburg-American Line	590 5	72 3	28 0	San Francisco, Cal.	New York, N. Y.	Passengers		20,893	12,735
Lillian Luckenbach.	21	10 20	21	13 15	21	21 20	21	21 20	American	Luckenbach Line	448 9	60 2	31 6	Portland, Oreg	Boston, Mass	Lumber, general.	8,269	9,294	6,865
Tasmania	21	10 40	21	13 40	21	22 55	22	2 10	British	N. Z. Shipping Co	484 5	62 7	21 6	Brisbane, Australia	Glasgow, Scotland	[18]	5,120	9,486	6,578
Y-5 [14]			21		21				American	U. S. Army				Balboa, C. Z	Cristobal, C. Z				
Knute Nelson	21	15 30	22	1 08	22	9 00			Norwegian.	Fred Olsen & Co	435 1	56 2	28 0	Seattle, Wash	Oslo, Norway	General	8,484	8,016	5,854
Pacific Pioneer [12]	21	16 50	22	2 30	22	11 55	22	11 55	British	Furness, Withy & Co		60 2	27 5	Victoria, B. C	Glasgow, Scotland	General	8,418	9,630	6,943
Penmar	21	20 01	22	3 02	22	12 00	22	12 00	American	Calmar S. S. Corp	385 3	51 2	26 9	Aberdeen, Wash	Philadelphia, Pa.	Lumber	6,525	6,224	4,465
Kyufuku Maru	22	1 00	22	4 07	22	13 30	22	14 45	Japanese	Kokusai Kisen Kaisha.	385 0	51 0	27 2	Manila, P. I	Baltimore, Md	Sugar in bags	7,400	5,919	4,400
Belgium Maru	22	3 45	22	4 55	22	14 20	22	15 05	Japanese	Kokusai Kisen Kaisha.	385 0	51 0	27 0	Tocopilla, Chile	Charleston, S. C.	Nitrates	8,250	6,219	4,611
East Lynn [12]	22	4 35	22	6 14	22	15 50	22	15 30	British	Sir W. R. Smith & Sons	401 1	54 3	25 1	Vancouver, B. C.	London, England	General	7,723	6,784	5,107
Acajutla	22	6 00	22	7 11	22	16 55			British	Pacific Steam Nav. Co	215 7	33 5	16 3	Champerico, Guat	Cristobal, C. Z.	Coffee, general	863	1,273	706
Suraileo	22	6 15	22	7 26	22	16 50	22	16 56	American	Transmarine Lines.	324 0	46 2	24 6	Aberdeen, Wash.	Port Newark, N. J.	Lumber	3,600	3,984	2,628
Canadian Highlander	22	10 45	22	11 24	22	18 35	23	00 10	British	Can. Nat. Steamships	400 0	52 4	14 0	Adelaide, Australia	Montreal, Canada	[19]	1,542	6,192	4,402
Pacific Spruce	22	16 00	22	16 18	23	8 55	23	8 55	American	Dimon S. S. Corp	410 5	54 0	26 0	Seattle, Wash	Baltimore, Md	Lumber	7,871	6,624	4,757
Benmaedhui	22	17 55	22	20 00	23	10 45	23	12 15	British	Ben Line, Ltd.	401 0	54 1	29 0	Vancouver, B. C.	Hamburg, Germany	Wheat, lumber	8,000	6,562	4,745
Gen. M. H. Sherman	22	18 45	22	20 45	23	11 25	23	11 25	American	Arrow Line	402 6	53 0	26 0	South Bend, Wash.	Baltimore, Md	Lumber	7,600	6,575	4,912
Point Reyes	22	19 45	22	22 04	23	12 40	23	12 40	American.	Swayne & Hoyt, Inc	324 0	46 2	20 0	Portland, Oreg	New Orleans, La.	[20]	3,164	3,984	2,617
Manizales	23	5 45	23	7 36	23	14 15	25	6 00	German	Roland Line.	216 5	32 9	11 00	Buenaventura, Col.	Cristobal, C. Z.	General	216	1,132	741
Cellina [12]	23	7 25	23	8 12	23	15 20	23	20 40	Italian	Nav. Libera-Triestina	436.6	53 7	27.7	Seattle, Wash	Trieste, Italy	Wheat, general.	9,014	7,790	6,054

[1] Tanker. [12] Motor ship. [13] Cruiser. [14] Launch. [15] Copper, nitrates, and general. [16] Coffee, hides, and specie. [17] For orders. [18] Farm products and frozen.
[19] Wool, hardware, and general. [20] Lumber, wheat, and general.

Limon	23	9.45	23	10.27	23	18.10	24	17.20	American	United Fruit Co	330.6	44.5	20.0	San Francisco, Cal.	Cristobal, C. Z.	Coffee, general	829	3,684	2,234
Mina Brea [1]	22	6.20	23	11.41	23	19.50	23	19.50	British	Imperial Oil Co	360.3	49.2	25.0	Talara, Peru	Halifax, N. S.	Crude oil	4,750	4,478	2,703
Steel Mariner	23	15.00	23	15.33	23	22.50	23	22.50	American	Isthmian S. S. Lines	424.2	56.0	25.6	Vancouver, B. C.	Baltimore, Md.	([25])	7,860	7,611	5,450
Chateau Thierry [21]	23	13.22	24	00.24	24	8.45	24	8.45	American	U. S. Army	448.0	58.0	25.0	San Francisco, Cal.	New York, N. Y.	Army supplies	221		
Abron	23	15.45	24	1.19	24	10.00	24	10.00	American	Redwood Line, Inc	386.8	52.2	22.2	San Francisco, Cal.	New Orleans, La.	([26])	5,500	5,732	4,131
Florence Luckenbach	23	21.55	24	2.05	24	10.07	24	10.07	American	Luckenbach Line	401.8	52.2	24.0	Portland, Oreg.	Mobile, Ala.	General	7,307	6,002	4,621
K. R. Kingsbury [1]	23	19.15	24	4.06	24	11.25	24	11.25	American	Standard Oil Co. of Cal.	440.0	58.2	23.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,000	9,033	5,938
Almirante Latorre [22]	23	11.55	24	6.43	24	15.20			Chilean	Chilean Navy	625.0	92.5	28.0	Iquique, Chile	Plymouth, England				
Canadolite [1] [23]	23	23.00	24	7.53	24	16.05	24	16.05	British	Imperial Oil Co	510.8	68.0	30.0	Talara, Peru	Montreal, Canada	Crude oil	16,000	11,556	6,772
Cuyama [1]	23	7.50	24	8.42	24	17.12	25	12.15	American	U. S. Navy	475.0	56.2	28.0	Los Angeles, Calif.	Cristobal, C. Z.	([27])	220		
Virgilia	24	8.45	24	10.13	24	19.15	25	14.45	British	Gow, Harrison & Co	410.3	54.5	22.6	Los Angeles, Calif.	Blaye, France	Gasoline	7,500	6,089	4,380
Franconia	24	6.00	24	11.58	24	20.35	24	21.10	British	Cunard Line	601.3	73.7	27.0	San Francisco, Cal.	New York, N. Y.	Passengers		22,513	16,521
Isis [24]	23	22.50	24	13.07	24	22.10			German	Hamburg-AmericanLine	376.2	51.8	25.1	Iquique, Chile	Savannah, Ga	Nitrates	6,756	5,788	4,027
Nyhang	24	11.50	24	13.44	24	22.40	24	22.40	Norwegian	Scand.-So. Pacific Co.	350.0	51.5	23.6	Cruz Grande, Chile	Baltimore, Md	Iron ore	6,350	1,788	3,347
Santa Veronica	24	7.30	24	15.58	25	20.40	25	20.40	American	Amer.-Cuban S. S. Line	251.0	43.5	21.0	Hilo, T. H	New York, N. Y.	Sugar	3,310	2,823	1,740
Columbian	24	15.23	24	16.05	25	8.40	25	8.40	American	Amer.-Hawaiian Line	434.6	54.0	28.0	Seattle, Wash	Boston, Mass	General	5,768	6,760	4,450
Uganda	24	19.10	25	1.09	25	9.50	25	9.50	British	Wessel, Duval & Co	492.5	52.2	24.5	Antofagasta, Chile	Wilmington, N. C.	Nitrates	7,730	5,593	4,069
California Standard [1] [23]	24	23.50	25	4.21	25	12.10	25	14.25	American	Standard Oil Co. of Cal.	513.5	68.2	29.6	Los Angeles, Calif.	London, England	Gasoline	15,900	11,719	8,619
Tomislav	24	16.45	25	6.04	25	14.20	25	15.25	Yugoslav	Yugoslav Lloyd	493.6	52.5	25.0	Pisagua, Chile	Azores [17]	Nitrates	8,349	5,926	4,189
Sacramento [23]			25	6.35	25	14.45			American	U. S. Navy	224.0	40.0	12.4	Balboa, C. Z	Cristobal, C. Z.				
Durazzo	25	4.15	25	7.17	25	14.50			German	Hamburg-AmericanLine	227.5	34.4	13.0	Guayaquil, Ecuad'r	Cristobal, C. Z.	Sack goods	283	1,633	1,141
Cedar Branch	25	7.55	25	8.54	25	17.25	25	18.30	British	F. & W. Ritson	390.5	51.0	22.0	Corral, Chile	London, England	Nitrates, general	5,170	4,927	3,597
Lautaro [12]	25	9.30	25	13.06	25	21.15	25	21.15	British	Pacific Steam Nav. Co	399.0	52.2	29.0	Magellanes, Chile	Liverpool, England	([28])	8,472	6,759	4,840
Creole Jefe [1] [24]	19	19.45	25	19.56	26	8.45	26	8.45	Venezuelan	Creole Petroleum Co	325.0	55.0	10.4	Balboa, C. Z	Maracaibo, Venez.	Ballast			
West Katan	25	16.10	25	20.20	26	10.00	26	10.00	American	Pac.-Atlantic S. S. Co.	410.5	54.3	24.3	San Francisco, Cal.	Wilmington, N. C.	Lumber	8,166	6,573	4,916

[1] Tanker. [21] U. S. Army transport. [22] Battleship. [23] Cruiser. [24] South for dry-docking. [25] Lumber, oil, and machinery. [26] Logs, sugar, and general.
[27] Fuel oil and gasoline. [28] Copper, nitrates, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 19	Magdalena	Hamburg-American Line	Port Limon, Costa Rica.	May 19	Wanks	Stand. Fruit S. S. Co	San Blas, R. P.
May 19	Atlantian	Leyland Line	Liverpool via wayports.	May 19	Toloa	United Fruit Co	New York via Habana.
May 19	Toloa	United Fruit Co	Port Limon, Costa Rica.	May 19	Magdalena	Hamburg-American Line	Hamburg via wayports.
May 19	Inapaquina [29]	United Fruit Co	Colon, R. P.	May 19	Anaciuena [29]	United Fruit Co	Colon, R. P.
May 19	Anaciuena [29]	United Fruit Co	Colon, R. P.	May 19	Inapaquina [29]	United Fruit Co	Colon, R. P.
May 19	Annetta I [29]	A. Tagaropulos	Colon, R. P.	May 19	Annetta I. [29]	A Tagaropulos	Colon, R. P.
May 20	Waunta	Stand. Fruit S. S. Co	Puerto Cabezas.	May 20	Paris nina	United Fruit Co	New Orleans via wayports.
May 20	Calamares	United Fruit Co	New York via Habana.	May 20	Atlantian	Leyland Line	Pto. Colombia via Limon.
May 20	No. 9775 [30]	Pan-American Airways	Guayaquil via wayports.	May 21	Waunta	Stand. Fruit S. S. Co	Puerto Cabezas.
May 21	Saramacca	United Fruit Co	Puerto Colombia.	May 21	Saramacca	United Fruit Co	Bocas del Toro, R. P.

[29] Motor boat. [30] Air-mail carrier. * Other than ships passing through the Canal

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
May 21	Mayan	Gulf-Caribbean S. S. Line	Beaumont via wayports.	May 21	William M [31]	G. I. Bryan	Bluefields, Nicaragua.
May 21	William M [31]	G. I. Bryan	Colon, R. P.	May 22	Calamares	United Fruit Co	Port Limon, Costa Rica.
May 22	Ancon	Panama R. R. S. S. Line	New York via Haiti.	May 22	Anachucuna [33]	United Fruit Co	Colon, R. P.
May 22	Metapan	United Fruit Co	New York via Kingston.	May 22	Inapaquina [33]	United Fruit Co	Colon, R. P.
May 22	Colombia No. 28 [32]	Scadta Airplane Co	Barranquilla, Colombia.	May 22	Annetta I. [33]	A. Tagaropulos	Colon, R. P.
May 22	Anachucuna [33]	United Fruit Co	Colon, R. P.	May 22	Mayan	Gulf-Caribbean S. S. Line	Cartagena, Colombia.
May 22	Inapaquina [33]	United Fruit Co	Colon, R. P.	May 23	No. 9685 [32]	Pan-American Airways	Managua via David.
May 22	Annetta I. [33]	A. Tagaropulos	Colon, R. P.	May 23	Metapan	United Fruit Co	New York via wayports.
May 23	Linda S. [34]	A. L. Surgeon	Colon, R. P.	May 23	Linda S. [34]	A. L. Surgeon	Bluefields, Nicaragua.
May 24	Atlantida	Stand. Fruit S. S. Co	New Orleans via wayport	May 23	Colombia No. 28 [32]	Scadta Airplane Co	Colombia.
May 24	Saramacca	United Fruit Co	Bocas del Toro, R. P.	May 24	Coppename	United Fruit Co	Port Limon via Bocas.
May 24	Ninian	Leyland Line	Port Limon, Costa Rica.	May 25	No. 9604 [32]	Pan-American Airways	Managua via David.
May 24	Coppename	United Fruit Co	New Orleans, La.	May 25	Atlantida	Stand. Fruit S. S. Co	New Orleans via wayports.
May 24	Macabi	United Fruit Co	New York via wayports.	May 25	Carare	Elders & Fyffes Line	Kingston, Jamaica.
May 24	Buenos Aires	Spanish Steamship Line	Barcelona via wayports.	May 25	Macabi	United Fruit Co	New York via Kingston.
May 24	Wanks	Stand. Fruit S. S. Co	San Blas, R. P.	May 25	Saramacca	United Fruit Co	New Orleans, La.
May 25	No. 9685 [32]	Pan-American Airways	Managua via wayports.				
May 25	Carare	Elders & Fyffes Line	Avonmouth via wayports.				
May 25	Heredia	United Fruit Co	New Orleans via Habana				

[31] Schooner. [32] Air-mail carrier. [33] Motor boat. [34] Motor schooner.

PORT OF BALBOA.

May 21	Atlas	Standard Transp. Co	Los Angeles, Calif.	May 22	Atlas	Standard Transp. Co	Los Angeles, Calif.
May 22	Dos Hermanos [35]	A. Valdez	Bayano River, R. P.	May 22	Dos Hermanos [35]	A. Valdez	Panama Bay, R. P.
May 22	Sambu [35]	Hans Elliot	El Real, R. P.				

[35] Motor schooner. * Other than ships passing through the Canal.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective May 28, 1929:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.22
Brass, sheet, average	Lb.	.35
Bronze, Tobin, average	Lb.	.21
Gasoline, motor grade	Gal.	.15
Metal, yellow	Lb.	.24
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.17
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals	1.50
Oil, ammonia, cylinder	Gal.	.28
Oil, burning, Colza	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135	Gal.	.43
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250	Gal.	.58
Oil, engine, gas, extra heavy, in drums, Gulftriton No. 2250	Gal.	.50
Oil, kerosene, in drums	Gal.	.11
Oil, marine engine	Gal.	.54
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc oxide, dry	Lb.	10
Paint, zinc oxide, in oil	Lb.	.13
Grease, gear, chain and wire rope, lubricating	Lb.	05
Grease, yellow, cup, No. 3	Lb.	08
Grease, yellow, cup, No. 5	Lb.	09
Soda, ash	Lb.	03
Waste, cotton, colored	Lb.	15
Waste, cotton, white	Lb.	.16

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2	$8.00	$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds	11.00	14.00

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending May 18, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
St. Mihiel	U. S. Government	May 3	May 4	1,081	92
Wasgenwald	Hamburg-American Line	May 4	May 6	1,042	.....
Mina Brea	Imperial Oil Co	May 6	May 7	5,185	.....
Santa Teresa	W. R. Grace & Co	May 6	May 6	1	.....
Frost	Hans Ericson	May 7	May 7	345	14
Martha	Chr. Hannevig	May 9	May 13	39	.....
Caldas	National Navigation Co	May 10	May 10	.....	25
Kenowis	U. S. Government	May 11	May 13	714	56
Erfurt	Hamburg-American Line	May 11	May 11	.....	1
Jamaica	Pacific Steam Nav. Co	May 13	May 13	3	.....
Venezuela	Panama Mail S. S. Co	May 14	May 15	220	.....
Colombia	Panama Mail S. S. Co	May 15	May 15	74	30
Alkmaar	Royal Neth. S. S. Co	May 16	May 16	122	.....
Davanger	Westfal, Larsen & Co	May 16	May 18	9,214	.....
California	Panama Pacific Line	May 17	May 17	.....	180
Incalite	Imperial Oil Co	May 17	May 17	.....	1

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, White male	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.; Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Section "B:"	
Ward 5, Male, private rooms, American boys	Daily, 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m. (No visitors permitted in nursery.)
Ward 6, Foreign, male and female, private rooms, American girls	
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U	
Ward 14, American, male, G. U	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.00 to 4.00 p. m.
Ward 17, Colored children	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 18, White children	Daily, 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 20, Colored, female, surgical, obstetrical	
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.
Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attendi physician, section nurse, and in her absence, the nurse in charge.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., June 5, 1929. No. 44.

Traffic Through the Panama Canal in May, 1929.

During the month of May, 1929, 524 commercial vessels and 18 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,296,546.57, and on the launches, $179.58, or a total tolls collection of $2,296,726.15.

The daily average number of commercial transits for the month was 16.90, and the average tolls collection $74,082.15, as compared with an average of 18.00 transits and $76,036.24 in tolls for the previous month. The average amount of tolls paid by each of the commercial transits was $4,382.72, as compared with $4,224.24 for the month of April, 1929. The daily average number of transits for the past month (16.90) was the lowest since September, 1928.

As compared with the month of April, 1929, commercial traffic for the past month was lower by 16 transits while the tolls collected during the past month were slightly higher than the revenue collected in April. As compared with May, 1928, traffic for the past month was greater by 16 transits and over $175,000.00 in tolls.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the first 11 months of the current fiscal year, with the daily averages of transits and tolls, together with the totals for the first 11 months of the fiscal years 1928 and 1927:

Month.	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January	603	2,502,815.12	19.45	80,735.97
February	522	2,211,961.20	18.64	78,998.62
March	536	2,343,865.55	17.29	75,608.57
April	540	2,281,087.27	18.00	76,036.24
May	524	2,296,546.57	16.90	74,082.15
Totals, first 11 months of fiscal year, 1929	5,910	24,999,570.94	17.64	74,625.58
Totals, first 11 months of fiscal year, 1928	5,975	24,928,283.68	17.78	74,191.34
Totals, first 11 months of fiscal year, 1927	5,020	22,258,452.14	14.98	66,443.14

As compared with the first 11 months of the fiscal year 1928, the corresponding period this year has had 65 fewer transits, while the tolls collected during the first 11 months of this year are higher by slightly more than $71,000.00 than the revenue collected from commercial traffic in the first 11 months of the fiscal year 1928.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 1, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Cauca [2]	9	18 45	26	6 20	26	18 00	26	22 54	Colombia	National Navigation Co.	107 2	22 0	9 0	Cristobal, C. Z	Buenaventura, Col.	General	136	238	163
El Lobo [2]	25	20.10	26	6.15	26	13.58	26	14.45	British	Atlantic Refining Co	385.2	51.0	20 0	Philadelphia, Pa.	La Libertad, Ecua.	Ballast		4,851	3,326
Norwich City	26	6 00	26	7.18	26	15.35	26	19.46	British	Balfour Williamson	397.0	53 0	15.6	Port Said, Egypt	Los Angeles, Calif.	Ballast		6,051	4,514
Nebraskan	25	23.15	26	8.40	26	17.04	26	18.43	American	Amer.-Hawaiian Line	471 2	59 6	18 5	Boston, Mass	Portland, Oreg.	General	3,375	9,032	6,638
City of Batavia	25	00.35	26	9.45	26	18.09	26	19.37	British	Amer.-Australian Line	425 0	53.0	21.7	New York, N. Y.	Dunedin, N. Z.	General	3,864	6,488	4,680
Scottish Castle [1]	26	11.05	26	11.20	26	19 08	27	8 04	British	Anglo-Saxon Pet. Co.	440.8	57.4	18 0	Newcastle-on-Tyne	Los Angeles, Calif.	Ballast		7,532	5,162
Harvester [1]	26	12.00	26	12.20	26	19.45	26	21.17	American	The Texas S. S. Co	416.8	56 1	18 0	Jacksonville, Fla.	Los Angeles, Calif.	Ballast		6,977	5,183
Pat Doheny [1]	26	8.35	26	13.15	26	20.37	26	22.12	American	Richfield Oil Co	430.2	59.2	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,978	5,904
Adolf von Baeyer	24	21.10	26	14.05	26	21.37	26	22 54	German	Hamburg-American Line	409 10	53.11	22.10	Hamburg, Germany	San Antonio, Chile.	General	6,123	7,173	5,514
Sidney M. Hauptman	26	17.05	26	17.15	26	23.53	27	1.09	American	Munson, McCor'k Line.	401 0	53.2	22 0	Baltimore, Md.	Tacoma, Wash	(7)	5,665	7,082	5,167
Hurunui	26	19.00	27	6 45	27	14.17	27	15.45	British	N. Z. Shipping Co	470.0	62.2	27.10	London, England	Wellington, N. Z.	General	9,204	10,174	7,209
Muncaster Castle [2]	27	4.30	27	7.40	27	15.35	27	16.45	British	James Chambers & Co.	428.0	56 0	19.11	New York, N. Y.	Manila, P. I.	General	3,293	7,596	5,159
Acajutla	22	16.55	27	8.20	27	15.45	27	17.00	British	Pacific Steam Nav. Co	215 7	34 0	17.1	Cristobal, C. Z	Champerico, Guat.	General	1,134	1,273	706
Limon	27	4.40	27	8.45	27	17.49	27	18.40	American	United Fruit Co	330 6	44 0	20.0	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee.	688	3,080	2,234
Pacific Hemlock	27	7.35	27	8.55	27	17.37	27	18.40	American	Dimon S. S. Corp	409.7	54.2	21.0	New York, N. Y.	Tacoma, Wash.	General	6,006	6,630	4,916
King City	27	8.50	27	9.35	27	18.34	27	20.06	British	The Texas S. S. Co	400.0	54 0	25 8	Pt. Arthur, Tex.	Taku Bar, China	Case oil	7,905	6,993	5,397
Cleveland [3]	23	8.50	27	11.30	27	20.20			American	U. S. Navy	292.0	44 0	17 11	Nicaragua	Balboa, C. Z				
British Prince	27	10.05	27	11.40	27	20.15	28	00.58	British	Prince Line, Ltd.	450 0	58 0	24 4	Newport News, Va.	Yokohama, Japan	General	6,003	8,662	6,099
City of Dalhart [2]	27	16 10	27	16 25	27	22.42	28	2.02	American	Roosevelt S. S. Co., S. B.	402.0	54 0	22 0	Baltimore, Md.	Adelaide, Australia	General	2,476	7,097	5,268
El Panquiaco [4]	28	6.15	28	6.15	28	15 57	29	17.00	Panaman	Panaman Government	125 0	23.0		Colon, R. P.	Panama, R. P.			288	101
Lebore	27	9.05	28	6 22	28	14.28	28	15.35	American	Ore S. S. Corp	549.0	72.0	23.5	Norfolk, Va	Cruz Grande, Chile	Ballast		14,325	4,635
Dean Emery [1]	27	21.40	28	7.20	28	15.44	28	16.45	American	Huasteca Petroleum Co.	429.3	59.3	21 0	Baltimore, Md	Los Angeles, Calif.	Ballast		7,709	5,517
Gro	28	7.50	28	8.20	28	17.37	28	20.15	Norway	W. L Comyn	351.0	50.0	23 10	Preston, Cuba	Vancouver, B. C.	Sugar	5,250	4,475	3,264
Cumberland	28	9.11	28	9.50	28	18.42	28	23.42	British	Federal Steam Nav. Co.	520.0	64 2	32.0	Newport, England	Timaru, N. Z	General	12639½	12,930	9,300
City of Brisbane	28	10 35	28	10.45	28	19.30	28	23.34	British	Hall Line, Ltd	463.0	58.0	25.8	New York, N. Y.	Adelaide, Australia	General	6,306	9,392	7,039
Canadian Importer	28	9.10	28	11.30	28	20.40	28	22.03	British	Can. Nat. Steamships	400.0	52.0	20.0	Montreal, Canada	Vancouver, B. C.	General	3,560	5,891	4,186
E. J. Hooper [5]			28		28	8 20			American	E. J. Hooper				Cristobal, C. Z	Gatun, C. Z	(8)		6	6
Raft			28		28	8.20			American	E. J. Hooper				Cristobal, C. Z	Gatun, C. Z			12	12
Raft			28		28	8.20			American	E. J. Hooper				Cristobal, C. Z	Gatun, C. Z			14	14
Hurry On [5]			28		28	10.49			American	B. Rodriquez				Cristobal, C. Z	Gatun, C. Z	(9)		1	1
El Porvenir [6]			28		28	10.49			American	B. Rodriquez				Cristobal, C. Z	Gatun, C. Z	Ballast		5	5

[1] Tanker. [2] Motor ship. [3] Cruiser. [4] Transport. [5] Launch. [6] Barge. [7] Steel, oil, and general. [8] Towing rafts. [9] Towing *El Porvenir*.

Breda	28	00.10	29	7.10	29	19.36	30	4.00	Dutch	Royal Neth. S. S. Co.	402.6	58.3	23.10	Hamburg,Germany	Corral, Chile	General	3,680	7,384	4,769
Seattle [2]	28	00.35	29	7.15	29	15.14	29	16.07	German	Hamburg-AmericanLine	461.0	61.0	23.6	Hamburg,Germany	Portland, Oreg	General, bananas	6,757	9,267	6,834
Centaurus	28	21.40	29	8.08	29	20.35	29	21.55	American	Isthmian S. S Lines	409.8	54.2	24.3	Philadelphia, Pa	Tacoma, Wash	Steel products	7,726	6,581	4,795
Panaman	29	3.40	29	8.30	29	21.28	29	22.36	American	Amer.-Hawaiian Line	407.7	53.7	22.0	New York, N. Y.	Seattle, Wash	General	4,103	7,098	5,065
Mary Pinchot [10]	4–29	1.50	29	8.50	29	19.43			American	G. Pirchot	110.0	26.0	16.0	New York, N. Y.	Galapagos Island	Ballast		255	129
Baldhill [1]	5–29	4.00	29	9.30	29	22.12	29	23.30	American	Baldhill S. S. Co	416.9	56.2	16.0	Mobile, Ala	Los Angeles, Calif	Ballast		6,728	4,690
Horace Luckenbach	29	5.53	29	10.20	29	22.59	30	00.02	American	Luckenbach Line	445.0	58.0	26.0	Boston, Mass	Seattle, Wash	General	6,431	8,699	6,363
Loreto [2]	28	23.05	29	11.20	30	00.09	30	7.45	British	Pacific Steam Nav. Co.	406.2	54.2	19.0	Hull, England	Valparaiso, Chile	General	4,507	7,334	5,037
Kia Ora	29	4.20	29	14.36	30	00.48	30	1.50	British	Shaw, Savill & Albion.	448.3	56.6	30.0	London, England	Dunedin, N. Z	General	6,040	8,237	5,771
Athelqueen [1 2]	29	11.20	29	15.35	30	1.26	30	4.00	British	British Molasses Co	471.0	63.0	18.6	New Orleans, La	San Francisco, Cal.	Ballast		9,412	6,386
West Keats	29	13.35	29	17.15	30	2.12	30	3.28	American	States Steamship Co	410.5	54.3	20.5	Wilmington, Del	Seattle, Wash	General	5,008	6,572	4,900
Ecuador	29	5.00	30	6.05	30	14.36	30	23.42	American	Panama Mail S. S. Co.	380.6	48.7	23.7	New York, N. Y.	San Francisco, Cal.	General, coffee	2,521	5,926	4,178
Santa Teresa	29	14.50	30	6.15	30	14.45	30	17.10	American	Grace Line	360.2	51.6	24.7	New York, N. Y.	Talcahuano, Chile	General	2,453	5,726	4,086
Geo. H. Jones [1]	30	2.10	30	7.25	30	16.05	30	17.10	American	Standard Shipping Co.	429.0	59.2	23.0	New York, N. Y.	Talara, Peru	Ballast		7,689	5,667
Suscolanco	30	7.15	30	7.35	30	16.55	30	18.17	American	Transmarine Lines	324.0	46.0	20.0	Mobile, Ala	Seattle, Wash	General	2,523	3,984	2,612
Feltre [2]	29	20 30	30	13.42	30	20 23	30	21.43	Italian	Nav. Libera-Triestina	430.0	55.0	18.3	Trieste, Italy	Vancouver, B. C.	General	2,184	7,795	6,041
Pennsylvanie	30	7.30	30	16.55	31	1.40	31	2.52	French	French Line	400.0	52.0	16.4	Havre, France	San Antonio, Chile	General	1,284	5,964	4,384
W. S. Rheem [1]	29	16.50	30	17.25	31	00 11	31	1.27	American	Standard Oil Co	500.0	68.2	19.0	Philadelphia, Pa	Los Angeles, Calif	Ballast		11,224	7,895
Sarie Marais [11]			30		30	15.36			Panaman	Ramon Carballo	37.0	12.0		Cristobal, C. Z	Gatun, C. Z	Ballast		25	9
Sunewarkco	31	2.45	31	6.25	31	13.27	31	14.35	American	Transmarine Lines	324.0	46.0	16.0	Newark, N. J	San Francisco, Cal.	General	887	3,984	2,628
Eleanor Christensen	31	5.13	31	7.30	31	14.27	31	17.10	American	Christensen S. S. Co	410.0	54.4	22.0	Baltimore, Md	Seattle, Wash	General	4,855	6,572	4,788
President Johnson	31	7.45	31	8.40	31	15 32	31	21.40	American	Dollar Line	600.0	65.3	30.0	New York, N. Y.	San Francisco, Cal.	General	4,867	17,081	11,314
Nosa Prince	30	17.05	31	8.50	31	17 15	31	23.15	American	N. O. & S. A. S. S. Co.	324.0	46.2	21.7	New Orleans, La	Talcahuano, Chile	General	2,965	3,983	2,570
Gargoyle [1]	31	5.20	31	10.00	31	19 25	31	20.45	American	Vacuum Oil Co	425.0	57.2	23.0	Paulsboro, N. J.	San Francisco, Cal.	Ballast		7,510	4,989
Montrolite [1 2]	31	7.45	31	11.25	31	20 17	6–1	1.58	British	Imperial Oil Co	510.0	68.2	23.0	Montreal, Canada	Talara, Peru	Ballast		11,555	6,753
Victolite [1 2]	31	22 20	6–1	6.38	6–1	13 43	1	19.00	British	Imperial Oil Co	510.0	68.2	19.6	Halifax, N. S.	Talara, Peru	Ballast		11,575	7,033
Agwipond [1]	6–1	4.00	1	7.20	1	15 11	2	4.45	American	Cities Service Refi'ng Co.	468.0	62.7	19.0	New York, N. Y.	Los Angeles, Calif	Ballast		9,810	6,965
Charlbury	1	4.35	1	8.15	1	16.41	1	18.05	British	N. Z. Shipping Co	400.0	52.0	23.0	Montreal, Canada	Brisbane, Australia	General	4,200	6,030	4,421
Atlantic Sun [1]	1	8.35	1	8.55	1	17.02	1	18.30	American	Sun Oil Co	429.3	59.2	19.0	Philadelphia, Pa	Los Angeles, Calif	Ballast		7,568	5,283
Guayaquil	5–31	8.10	1	9.35	1	18.35	2	5.00	American	Panama R. R. S. S. Line	251.0	43.6	18.8	New York, N. Y.	Guayaquil, Ecuad'r	General	1,113	2,874	1,944
Pomona	1	10.05	1	10.30	1	19.28	2	1.30	American	Argonaut S. S. Co	440.0	56.0	27.6	Baltimore, Md	Seattle, Wash	General	10,438	8,324	6,036
Silverguava [2]	1	10.20	1	10.55	1	18.23	2	1.30	British	S. & J. Thompson	425.0	58.3	23.6	New York, N. Y.	Singapore, Str. Set	General	5,956	8,216	6,037
Pellegra	5–30	7.25	1	12.20	1	20 04	1	22.20	Italian	Italia Chileno Line	350.0	46 2	16.9	Genoa, Italy	Valparaiso, Chile	General	821	4,035	2,917
Chetopa	6–1	14.10	1	15 35	1	22.41	2	00.10	American	Charles Nelson & Co	324.0	46.0	20.6	Baltimore, Md	Seattle, Wash	General	2,173	3,984	2,628
Arizonan	1	17.45	1	19.50	2	2.29	2	4.05	American	Amer.-Hawaiian Line	434.0	57.0	31.0	Boston, Mass	Portland, Oreg	General	4,467	7,983	5,895

[10] Yacht.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Santa Cecelia	25	21.00	26	3.07	26	12.40	26	17.05	American	Grace Line	408.0	55.2	22.6	Valparaiso, Chile	New York, N. Y.	(11)	5,437	6,672	4,905
Kellerwald	26	1.50	26	6.55	26	13 35	26	16.00	German	Hamburg-AmericanLine	399.0	54.2	16.0	Antofagasta, Chile	Hamburg,Germany	Ballast		6,545	4,483
Stigstad [1 2]	26	7.30	26	8.24	26	15.18	26	15.18	Norwegian	A. F. Klavenes	386.0	55.2	26.0	Los Angeles, Calif	London, England	Gasoline		7,590	6,221
Poljana	26	11.15	26	12.07	26	20 35	27	1.25	Norwegian	Scand.-So. Pacific Line	360.7	52.0	22.3	Arica, Chile	Land's End, Eng.	General	5,573	5,451	3,820
Hofuku Maru	26	15.00	26	20.37	27	8 45	27	9.30	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.0	Iloilo, P. I	Boston, Mass	Sugar	7,800	6,212	4,710
Curaca	26	15.20	27	00.42	27	13.20	27	13.20	Panaman	Grace Line	403.0	52.4	29.0	Tocopilla, Chile	New York, N. Y.	Nitrates, copper	8,891	6,804	4,897
Steelmaker	26	16.30	27	1.40	27	12.55	27	18.25	American	Isthmian S. S. Lines	395.5	55.0	27.0	Vancouver, B. C.	London, England	Lumber, grain	8,286	7,330	5,245
Chilore	26	22.05	27	5.59	27	16.05	27	16.10	American	Ore S. S. Corp	549.6	72.2	34.6	Cruz Grande, Chile	Baltimore, Md	Iron ore	20,000	14,538	9,348
Essequibo	27	3.00	27	7.36	27	15.00	27	22.18	British	Pacific Steam Nav. Co	450.0	57.8	25.0	Talcahuano, Chile	New York, N. Y.	Copper, general	3,498	9,158	6,176

[1] Tanker. [11] Copper, nitrates, and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
S-11 [12]			27	7.48	27	17.15			American	U. S. Navy	231.0	31 0		Balboa, C. Z	Cristobal, C. Z				
BohemianClub [1]	27	5.45	27	8.24	27	16.20	27	18.50	American	Atlantic Refining Co	425.0	57.2	27 6	Los Angeles, Calif	Philadelphia, Pa	Gasoline	8,911	7,204	4,739
Wekika	27	5.30	27	9.18	27	17.25	27	17.25	American	Mallory Transp. Co	333 8	46.0	22 7	Westport, Oreg	New York, N. Y	Lumber	4,750	4,112	2,846
Colombo	27	9.15	27	11.09	27	18.32	29	15.45	Italian	Italian Line	518.0	64.0	23 8	Valparaiso, Chile	Genoa, Italy	General	2,754	12,457	7,420
Doricstar	27	8.50	27	12.34	27	21.35	28	2.15	British	Blue Star Line	499 8	64.0	30 6	Vancouver, B. C	Newcastle, Eng	General	10,056	11,673	8,143
Guatemala	27	9.08	28	4.12	28	10.25	29	00.05	American	Panama Mail S. S. Co	360.2	51.8	23 0	San Francisco, Cal	New York, N. Y	General	2,703	5,776	4,081
Walter A. Luckenbach	28	3.40	28	4.16	28	11.30	28	11.30	American	Luckenbach Line	446.5	56 1	30 0	Portland, Oreg	Boston, Mass	Lumber, lead	8,196	8,785	6,567
Varg [2] [13]	28	00.20	28	5.39	28	13.45	28	13.45	Norwegian	Caucasian Oil Co	390.6	55.2	25 6	Los Angeles, Calif	Land's End, Eng [17]	Gasoline	7,376	5,983	3,856
Atrato [13]	28	7.00	28	7.45	28	15.30			Colombian	Colombian Transp. Co	92.0	23 0	7 0	Tumaco, Col	Cristobal, C. Z	Coffee, cocoa	21	160	92
Missoula	27	21.09	28	7.52	28	15.25	28	15.25	American	Hammond Lumber Co	362.3	51.2	21 6	Los Angeles, Calif	San Juan, P. R	Lumber	4,208	4,947	3,374
Hermion	28	9.30	28	10.37	28	20.00	28	20.50	Norwegian	Brunsgaard Line	390 0	54 0	26 2	Vancouver, B. C	Antwerp, Belgium	General	6,692	5,746	4,232
Cambrai [14]	28	10.54	28	13.29	28	19.47	28	23.15	American	U. S. Army	448 0	58 0	24 0	San Francisco, Cal	Brooklyn, N. Y	Army supplies	126		
Meissonier	28	17.20	28	20.08	29	8.50	29	10.05	British	N. Pacific Coast Serv	440 0	56.3	24 0	Vancouver, B. C	Rotterdam, Holland	General	4,066	7,487	4,641
Peter Kerr	28	20.00	28	21.55	29	9.05	29	9.05	American	Pacific-Atlantic S. S. Co	415.0	55.7	28.0	Portland, Oreg	Baltimore, Md	Lumber, copper	8,746	7,704	5,707
Major D. Pullen [15]			28		29				American	U. S. Army				Balboa, C. Z	Gatun Lake, C. Z.				
Warlaby	29	2.45	29	3.24	29	15.15	29	16.45	British	Sir. R. Ropner & Co	390.1	55.5	24.6	Vancouver, B. C.	Boston, Mass	Lumber		5,998	4,257
Nora [1]	29	3.15	29	4.39	29	15.45	29	15.45	American	Grace Line	467.6	62 7	29 0	Los Angeles, Calif	Baltimore, Md	Crude oil	13,700	9,918	7,363
Mongolia	28	16.30	29	6.19	29	14.35	29	15.10	American	Panama-Pacific Line	600.0	65.3	30.0	San Francisco, Cal	New York, N. Y	General	6,884	17,041	11,426
Acme [1]	29	6.10	29	6.46	29	16.45	29	16.45	American	Standard Transp. Co	435 0	56 0	26 0	Los Angeles, Calif	New York, N. Y	Gasoline	8,256	7,165	4,926
Orduna	29	5.40	29	8.00	29	16.25	30	3.40	British	Pacific Steam Nav. Co	550.3	67.3	27.6	Valparaiso, Chile	Liverpool, England	General	5,855	17,146	12,015
Tainui	29	9.10	29	9.56	29	18.20	30	1.30	British	Shaw, Savill & Albion	477.8	61 1	22.6	Wellington, N. Z	London, England	Frozen, general	4,550	10,657	7,617
Benreoch	29	9.20	29	10.45	29	19.35	29	22.15	British	Can.-Amer. Ship. Co	420.0	54.0	25.0	Portland, Oreg	Dunkirk, France	Grain, lumber	6,396	6,425	4,068
Castor [1]	29	6.50	29	11.34	29	20.30	29	20.30	Swedish	Anglo-Saxon Pet. Co	482.1	61.8	28.0	Los Angeles, Calif	Land's End, Eng [17]	Gasoline	11,396	8,960	6,295
Hakutatsu Maru	29	12.20	29	13.03	29	21.00	29	21.00	Japanese	Tatsuma Shokai	411.5	55.4	28 0	Vancouver, B. C.	New York, N. Y	Lumber	8,220		
El Ciervo [1]	29	12.30	29	14.25	29	21.50	30	00.45	British	C. T. Bowring & Co	407.4	52.2	25 6	La Libertad, Ecua	Philadelphia, Pa	Crude oil	7,986	6,046	4,326
El Aleto [13]	29	5.05	29	14.25	29	22.35	30	2.10	British	C. T. Bowring & Co	440 8	57 5	26 2	Cabo Blanco, Peru	Halifax, N. S	Petroleum	9,626	7,555	5,049
Rangitiki [13]	29	16.00	30	6.23	30	14.54	30	14.25	British	N. Z. Shipping Co	552.0	70.4	29.6	Wellington, N. Z	London, England	General	5,859	18,386	12,678
Larry Doheny [1]	30	8.00	30	8.26	30	16.00	30	16.00	American	Richfield Oil Co	430.0	59.2	28.0	Los Angeles, Calif	New York, N. Y	Gasoline	9,800	7,494	5,198
Dilworth [1]	30	10.30	30	11.52	30	19.00	30	19.00	American	Columbia-Pac. Ship. Co	435.0	56.0	25.6	Los Angeles, Calif	New Orleans, La	Coconut oil	6,404	7,441	5,099
Munaires	30	15.30	31	1.11	31	9.00	31	9.00	American	Munson S. S. Line	360.0	53.1	24.0	Tacoma, Wash	Baltimore, Md	Lumber, general	5,965	5,577	4,225
City of Panama [13]	30	19.45	31	2.15	31	9.20			Panaman	Panama Mail S. S. Co	296.9	45.9	18 6	San Francisco, Cal	Cristobal, C. Z	([18])	1,254	3,848	2,603
Dalblair	31	00.07	31	2.55	31	10.25	31	11.00	British	United Steam Nav. Co	406.5	54.1	23.9	Vancouver, B. C	Hull, England	Wheat	7,500	6,124	4,608
Hegira	31	00.15	31	3.54	31	12.20	31	12.20	American	Hegira S. S. Co	440.0	56.0	28.0	Everett, Wash	Newark, N. J	Lumber	10,000	8,353	6,113
Britta [1] [13]	30	16.05	31	4.36	31	13.40	31	13.40	Norwegian	Arthur H. Mathiesen	407.8	54.7	26.0	Los Angeles, Calif	Hull, England	Gasoline	8,107	6,539	4,252
Floreana [16]	31	6.45	31	7.55	31	16.00			Colombian	Colombian Transp. Co	150.0	27.2	9.8	Buenaventura, Col	Cristobal, C. Z	([19])	318	410	307

[1] Tanker. [12] Submarine. [13] Motor ship. [14] U. S. Army transport. [15] Launch [16] Motor schooner. [17] For orders. [18] Coffee, sugar, and general. [19] Coffee, hides, and cylinders.

Cali	31	7.35	31	8.39	31	15.55			German	Roland Line	216.5	32.9	10.6	Guayaquil, Ecuad'r	Cristobal, C. Z.	General	628	1,105	698
Caldas [23]	31	1.50	31	8.39	31	15.55	6-2	6.00	Colombian	Nacional Nav. Co	116.0	21.1	9.0	Buenaventura, Col.	Cristobal, C. Z.	General	131	211	124
Noorderdijk	31	12.50	31	13.40	31	21.45	31	23.15	Dutch	Holland-American Line	470.0	58.0	30.0	Victoria, B. C.	Antwerp, Belgium	General	11,002	8,888	6,612
San Mateo	31	14.35	31	15.18	31	22.10	6-2	00.45	American	United Fruit Co	315.0	44.2	19.0	San Francisco, Cal.	Cristobal, C. Z.	Lumber, general	835	3,495	2,142
Sumanco	31	10.30	31	19.38	6-1	8.55	1	15.35	American	Transmarine Lines	324.0	46.2	23.0	Aberdeen, Wash.	Newark, N. J.	Lumber	3,987	3,984	2,628
Sugillenco	31	17.15	31	20.00	1	9.00	1	9.00	American	Transmarine Lines	324 0	46.2	23 6	Tacoma, Wash.	Newark, N. J.	Lumber	3,775	3,984	2,612
Almelo	6-1	2 35	6-1	3.23	1	11.25	1	15.50	Dutch	Royal Neth. S. S. Co.	440.0	62.6	27.0	Valparaiso, Chile	Europe	General	10,000	9,655	6,838
Mexican	1	6 25	1	8.11	1	15.55	1	15.55	American	Amer.-Hawaiian Line	472.3	57.2	28.0	Portland, Oreg.	Boston, Mass	General	9,710	9,258	6,944

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
May 26	Glucksburg	Flensburger Dampfer Co	Pto. Colombia, Colombia.
May 26	Calamares	United Fruit Co	Port Limon, Costa Rica.
May 27	Inapaquina [20]	United Fruit Co	Colon, R. P.
May 27	Anachucuna [20]	United Fruit Co	Colon, R. P.
May 27	El Panquiaco [21]	Panaman Government	Colon, R. P.
May 27	Pastores	United Fruit Co	New York via Habana.
May 28	Juan	United Fruit Co	Galveston, Texas.
May 29	Sixaola	United Fruit Co	New York via Kingston.
May 29	Cundinamarca [22]	Scadta Airplane Co	Barranquilla, Colombia.
May 30	Tactician	Leyland S. S. Line	Liverpool via wayports.
May 30	Simon Bolivar	Royal Neth. S. S. Co	Hamburg via wayports.
May 30	Suriname	United Fruit Co	New Orleans, La.
May 31	Inapaquina [20]	United Fruit Co	Colon, R. P.
May 31	Coppename	United Fruit Co	Bocas, R. P.
May 31	Amapala	Stand. Fruit S. S. Co	New Orleans via Habana.
May 31	Wanks	Stand. Fruit S. S. Co	San Blas, R. P.
June 1	Juan	United Fruit Co	Perme, R. P.
June 1	Simon Bolivar	Royal Neth. S. S. Co	Port Limon, Costa Rica.
June 1	Cartago	United Fruit Co	New Orleans via Habana.
June 1	Linda S. [23]	A. L. Surgeon	Colon, R. P.
June 1	Annetta I. [20]	A. Tagaropulos	Colon, R. P.
June 1	Anachucuna [20]	United Fruit Co	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
May 26	Calamares	United Fruit Co	New York via Habana.
May 26	Ancon	Panama R. R. S. S. Line	New York via Haiti.
May 26	Wanks	Stand. Fruit S. S. Co	San Blas, R. P.
May 27	Inapaquina [20]	United Fruit Co	Colon, R. P.
May 27	El Panquiaco [21]	Panaman Government	Colon, R. P.
May 27	Anachucuna [20]	United Fruit Co	Colon, R. P.
May 27	Heredia	United Fruit Co	New Orleans via wayports.
May 28	No. 9775 [22]	Pan-American Airways	Managua via David.
May 29	Pastores	United Fruit Co	Port Limon, Costa Rica.
May 29	Buenos Aires	Spanish Steamship Line	Barcelona via wayports
May 29	Juan	United Fruit Co	Perme, R. P.
May 30	Cundinamarca [22]	Scadta Airplane Co	Barranquilla, Colombia.
May 30	Sixaola	United Fruit Co	New York via wayports.
May 30	Suriname	United Fruit Co	Santa Marta via Pto. Col.
May 30	Simon Bolivar	Royal Neth. S. S. Co	Port Limon, Costa Rica.
May 31	Inapaquina [20]	United Fruit Co	Colon, R. P.
May 31	Coppename	United Fruit Co	New Orleans, La.
May 31	Tactician	Leyland S. S. Line	Cartagena and Pto. Col.
May 31	No. 8820 [22]	Pan-American Airways	Guayaquil via wayports.
June 1	Annetta I [20]	A. Tagaropulos	Colon, R. P.
June 1	Anachucuna [20]	United Fruit Co	Colon, R. P.
June 1	Linda S [23]	A. L. Surgeon	Bluefields, Nic. and Limon.
June 1	No. 9685 [22]	Pan-American Airways	Managua via David.
June 1	Amapala	Standard Fruit S. S. Co	New Orleans via wayports.
June 1	Glucksburg	Flensburger Dampfer Co	Tampico, Mexico.
June 1	Juan	United Fruit Co	Mobile, Alabama.
June 1	Ninian	Leyland S. S. Line	Liverpool via wayports.

[20] Motor boat. [21] Transport. [22] Air-mail carrier. [23] Motor schooner.

PORT OF BALBOA.

May 27	La Brea	Union Oil Co., of Calif	Los Angeles, Calif.
May 30	A. B. de Obarrio [24]	Pacific Fruit Co	Bayano River, R. P.
May 30	Dos Hermanos [24]	A. Valdez	Bayano River, R. P.
May 30	Sambu [21]	H. Elliot	El Real, R. P.
May 31	San Luis [24]	Chiriqui Land Co	Pto. Armuelles, R. P.

May 26	Carabobo	Colombian Government	Buenaventura, Colombia.
May 29	La Brea	Union Oil Co. of Calif	Los Angeles, Calif.
May 30	A. B. de Obarrio [21]	Pacific Fruit Co	Panama Bay, R. P.
May 30	Dos Hermanos [21]	A. Valdez	Panama Bay, R. P.
May 31	Sambu [21]	H. Elliot	Panama Bay, R. P.
June 1	San Luis [21]	Chiriqui Land Co	Pto. Armuelles, R. P.

[24] Motor schooner.

* Other than ships passing through the Canal.

Shepard Steamship Company a New Intercoastal Carrier.

A new intercoastal steamship service, that of the Shepard Steamship Company, has begun the use of the Panama Canal with the dispatch of its first vessel, the *Sea Thrush*, due to transit the Canal from Atlantic to Pacific on June 6. The line has two other vessels, the *Sage Thrush* and the *Wind Rush* and is reported in the market for three more steamers for the fleet. The operating company was formed by the Shepard & Morse Lumber Co. and the line is to be used at present primarily for transporting lumber from North Pacific to North Atlantic ports.

Additional Vessels for the Navigazione Libera-Triestina.

Press reports state that the Navigazione Libera-Triestina has announced that it will add two freighters to its service between the Mediterranean and the Pacific coast of North America and begin a fortnightly service with the sailing of the motor ship *Cellina* from San Francisco in September. The two new vessels to be added are the steamers *Livenza* and *Savoia*, each of about 9,000 tons. Other vessels in the service are the motor ships *Leme*, *Feltre*, *Rialto*, *Fella* and *Cellina*.

Notices to Mariners.

Colombia—West Coast—Buenaventura River Entrance.

THE PANAMA CANAL EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *May 28, 1929.*

No. 544.

The following is quoted from a letter from the S. S. *Santa Cecilia*, dated May 26, 1929:

The enclosed Notice to Mariners, No. 535, dated May 6, 1929, does not agree with our observation of buoys and lights in Buenaventura River, May 24, 1929. The buoys and lights showed as follows:

(*a*) The light buoy about two miles south from Vigia de San Pablo shows flashing white. This buoy is a fairway buoy placed as a leading mark about half way between the sea buoy and the flashing red light of Soldado Point.

(*b*) The light buoy marking the wreck about two miles, 54 degrees from Soldado Point shows flashing white.

(*c*) There are no buoys to mark the wreck in Buenaventura harbor. The wreck is marked by a hand lantern, placed on the north and south end of the wreck showing a fixed red light. These lights are very dim and can not be seen at any great distance.

(Signed) J. F. ROSE, *Master.*

H. BURGESS,
Governor.

Aids to Mariners—Manzanilla Bay, Canal Zone.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *May 31, 1929.*

No. 546.

1. The red spar buoy off Coco Solo Point is permanently discontinued.

2. The entrance to Limon and Manzanillo Bays, between Coco Solo Point and the eastward end of the East Breakwater, is now marked by 2 first-class spar buoys, as follows:

(*a*) One red spar buoy, 255 yards from the eastward end of the East Breakwater, bearing 305° true, moored in 30 feet of water.

(*b*) One black spar buoy, 775 yards from the eastward end of the East Breakwater, bearing 296.5° true, moored in 30 feet of water.

Width of entrance: 540 yards. Minimum depth through entrance: 29 feet.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending June 1, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Abraham Lincoln	Fred Olsen & Co	May 19	May 21	1,980	
Santa Maria	Grace Line	May 19	May 20	6	1
Atlas	Standard Transp. Co	May 21	May 22	10,518	
Chateau Thierry	U. S. Government	May 23	May 23	47	139
D. G. Scofield	Standard Oil Co	May 23	May 24	10,750	
Cuyama	U. S. Government	May 23	May 24	7,000	
Cauca	National Navigation Co	May 26	May 26		29
Guatemala	Panama Mail S. S. Co	May 27	May 28	295	
La Brea	Union Oil Co	May 27	May 29	9,905	
Cambrai	U. S. Government	May 28	May 28	14	8
Breda	Royal Neth. S. S. Co	May 29	May 29	166	14
City of Panama	Panama Mail S. S. Co	May 30	May 31	14	
Ecuador	Panama Mail S. S. Co	May 30	May 30	28	4
Santa Teresa	Grace Line	May 30	May 30	1	
Caldas	National Navigation Co	May 31	May 31	10	
Nosa Prince	N. O. & S. A. S. S. Co	May 31	May 31	6	42
President Johnson	Dollar Line	May 31	May 31		4

Official Circulars.

Acting Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *June 1, 1929.*

To all concerned.—Effective June 3, 1929, and during my absence from the Isthmus, Lieut. Col. J. L. Schley, U. S. Army, Engineer of Maintenance, will be Acting Governor.

H. BURGESS,
Governor.

Duties of President of Panama Railroad Company.

PANAMA RAILROAD COMPANY,
OFFICE OF THE PRESIDENT,
BALBOA HEIGHTS, C. Z., *June 1, 1929.*

To all concerned.—Effective June 3, 1929, and during my absence from the Isthmus, Lieut. Col. J. L. Schley, U. S. Army, 2d Vice President, will perform such duties of the President as relate to the operations of the Company on the Isthmus.

H. BURGESS,
President.

Notice—Commissary Privileges.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *May 15, 1929.*

1. Persons who are authorized to buy in the commissaries have no right to let anyone else use their commissary books; and they have no right to buy anything in the commissaries for other persons, except as stated below.

2. Articles bought with a commissary book must be for the personal use of the owner or his immediate family. For instance, a commissary book issued to a married employee may be used by his wife and children; and such relatives as he actually supports in his home may also make purchases if they present a written request from him.

3. Servants who are sent to buy things must present a written request each time for what is wanted, signed by the owner of the commissary book, or by his wife if a married man.

4. All commissary books presented by persons for whom they were not intended will be taken up.

5. When a commissary book is issued the owner signs an agreement to obey the conditions which are printed on the back cover of every book. Ignorance of the rules will not be accepted as an excuse for violating them.

6. All inspectors and commissary employees are instructed to watch for any misuse of commissary books.

7. Any person who misuses a commissary book or abuses the privilege granted will be subject to such punishment as can be applied in each case. Any employee who violates these rules may be laid off without pay or discharged.

8. Anyone not sure of what is intended or what may be done in certain cases should ask the manager of the store.

H. BURGESS,
Governor.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide the means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective, in the course of handling large traffic through the Canal in over 13 years of operation.

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2	$8.00	$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds	11.00	14.00

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

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Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., June 12, 1929. No. 45.

New High Monthly Record for Cargo in Transit from Atlantic to Pacific.

The cargo tonnage passing through the Canal from the Atlantic to the Pacific during the month of May, 1929, amounted to 920,360 long tons, the greatest amount in that direction in one month since the opening of the Canal. The heaviest Pacific-bound tonnage in any previous month was in October, 1928, when 875,641 long tons were carried through.

Details of the distribution of the cargo passing through in May, 1929, over the various routes of trade will be found in another part of this issue.

Completion of Overhaul of Pacific Locks.

The overhaul of the Pacific Locks is to be completed on June 13 and normal operation of all locks resumed on June 14.

These are the normal operating arrangements for the three sets of locks:

Miraflores:....6.50 a. m. to 10.40 p. m.
Double chamber operation at all times.
Pedro Miguel: 7.00 a. m. to 10.40 p. m.
Double chamber operation from 9.30 a. m. to 5.30 p. m.
Gatun:.....7.00 a. m. to 11.00 p. m.
Double chamber operation from 11.45 a. m. to 7.45 p. m.

The overhaul of the Pacific Locks began on January 3, 1929, and required 5 months and 10 days. This is considerably longer than the usual overhaul period, of between 3 and 4 months, and was due to the additional items of complete installation of 60 new cylindrical valves, and the unhinging, inspection and repair of a pair of miter gates.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *June 7, 1929.*

No. 547.

The following was received by the Hydrographic Office through the Captain of the Port, Balboa:

U. S. S. *Sacramento*, June 3, Little Corn Island Light, position, latitude 12° 18′ North, longitude 82° 59′ West, observed in operation, character normal.

J. L. SCHLEY,
Acting Governor.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 8, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Caldas [2]	5-31	15 55	2	6.00	2	14 40	2	21 20	Colombian.	National Navigation Co.	116.0	21 0	10.6	Cristobal, C. Z.	Buenaventura, Col.	General	205	211	124
Perene	31	16 20	2	6 10	2	14 48	3	17 35	Peruvian	Peruvian Line	284.0	39 0	17.5	New York, N. Y.	Calloa, Peru	Coal, general.	1,943	2,168	1,529
Annie Johnson [2]	6-1	10 40	2	6 20	2	13.54	2	19.35	Swedish	Johnson Line	392 2	52 6	22.0	Stockholm, Sweden	San Francisco, Cal.	General	4,367	6,650	4,919
Republic [1]	1	21.20	2	7 35	2	15 50	2	16 55	American	Tidewater Oil Co	391 8	51 3	17 0	Baltimore, Md	San Francisco, Cal.	Ballast		5,551	3,881
Ani	1	23 00	2	7 30	2	16 41	3	5 10	Belgian.	Com. Int. de Com. D'Arm	400.0	52 0	28 4	London, England	Iquique, Chile	Cement	6,638	6,617	4,792
Chilcop	2	3 10	2	8 15	2	17 31	2	22 55	American	Chile Steamship Co	411.0	54 0	24 4	New York, N. Y.	Chanaral, Chile	General	7,331	6,609	4,973
Invella	2	6 35	2	8 19	2	18 29	2	19 54	British	International Freighter	400 0	52 0	20 0	New York, N. Y.	Talcahuano, Chile	General	3,000	5,665	3,986
Durazzo	5-25	14 50	2	10.50	2	18 58	2	20 18	German	Hamburg-American Line	226 0	34.0	13 3	Cristobal, C. Z	Buenaventura, Col.	General	141	1,633	1,041
Firmore	6-1	13 35	2	11 45	2	19 24	2	21 20	American	Ore S. S. Corp	449 1	57 2	20 7	Newport News, Va	Cruz Grande, Chile	Ballast		7,847	5,185
Planet	5-31	6 35	2	12 35	2	20 21	2	22 05	German	Hamburg-American Line	450 7	57 2	24.10	Hamburg, Germany	Valparaiso, Chile	General	5,600	7,460	5,234
Lake Elva	6-2	10 55	2	13 45	2	22 48	3	6 22	American	Amtrog Trading Co.	253 0	43 8	22 6	Newport News, Va.	Vladivostock, Rus.	General	2,384	2,814	1,858
Cali	5-31	15 55	2	14 45	2	22 49	3	00 25	German	Roland Line	216 5	33 0	13 6	Cristobal, C. Z	Buenaventura, Col.	General	179	1,105	698
Yankee Arrow [1]	2	17 30	2	18 10	3	1 24	3	5 19	American	Standard Oil Co	468 3	62 7	20 6	Boston, Mass.	Los Angeles, Calif	Ballast		9,841	6,946
Markland [1 2]	2	23 30	3	6 25	3	13 04	3	18 15	Norway	Export Petroleum Co	408 3	55 3	18 0	Hamburg, Germany	Los Angeles, Calif	Ballast		6,474	4,321
David McKelvy [1]	3	3.50	3	6 20	3	14 00	3	15 10	American	Tidewater Oil Co	430 0	59 0	20 0	Norfolk, Va	Los Angeles, Calif	Ballast		7,629	5,325
Plum Branch	3	5 50	3	7 20	3	19.52	3	21 22	British	F. & W. Ritson	410 0	54 0	19 0	Liverpool, England	Corral, Chile	General	2,500	5,761	3,881
Clauseus	3	13 45	3	13 55	3	21 50	4	7 16	American	Isthmian S. S. Lines	420 0	54 0	23 6	New York, N. Y.	Vancouver, B. C.	General	7,121	6,581	4,795
Willwello	3	16 00	3	16 10	3	23 12	4	00 26	American	Quaker Line	409 8	54 9	24 3	Philadelphia, Pa.	Seattle, Wash	General	5,398	6,821	4,927
San Mateo	3	18 30	3	19 20	4	2 37	4	3 50	American	United Fruit Co	315 2	44 2	18 1	Port Limon, C. R.	San Francisco, Cal.	Bananas, etc	584½	3,496	2,141
Santa Teresita [1]			3		4				American	Manuel Simpson				Cristobal, C. Z	Balboa, C. Z	Unknown		7	7
King Gruffydd	3	19.30	4	6 05	4	13 30	4	14 55	British	Dodd, Thomson & Co	401 0	52 4	26.6	Antwerp, Belgium	Auckland, N. Z.	Basic slag	6,929	5,779	4,097
Willbabco	4	00.30	4	6 15	4	14.55	4	16 25	American	States Steamship Co	468 5	58 5	20 6	Norfolk, Va.	Seattle, Wash	General	5,802	8,460	6,162
Julia Luckenbach.	4	3.10	4	7.25	4	15.39	4	16 40	American	Luckenbach Line	436 6	57 0	22 5	Houston, Texas	Tacoma, Wash	General	4,229	8,543	6,402
Royal Arrow [1]	4	5.35	4	7.30	4	17.00	4	18 10	American	Standard Transp. Co.	467 6	62 7	28 4	Beaumont, Texas.	Shanghai, China.	Kerosene	11,901	9,699	6,895
Stensby [1 2]	4	6.30	4	8.50	4	18.42	4	19.40	Danish	W. L. Comyn & Co.	350 2	50 8	19.1	Cardenas, Cuba	Los Angeles, Calif	Sugar	3,990	4,917	3,516
France Maru	4	8 40	4	10 05	4	18 47	4	19 55	Japanese	Kokusai Kisen Kaisha.	385 0	51 0	25.0	New York, N. Y.	Kobe, Japan	[5]	7,137	6,209	4,658
Altair [1]	4	8.55	4	10 50	4	19.34	4	20 45	American	Standard Oil Co	429 3	59.2	18 0	New York, N. Y.	Los Angeles, Calif	Ballast		7,695	5,402
William H. Doheny [1]	4	10.45	4	13 25	4	20 22	4	21.37	American	Huasteca Petroleum Co.	435 0	56 2	23 9	Baltimore, Md	Los Angeles, Calif	Ballast		7,406	5,111
Point Arena	4	17 00	4	17 15	5	00 15	5	1 25	American	Gulf-Pacific Line	324 0	46 0	24 8	New Orleans, La.	Los Angeles, Calif	General	3,789	3,984	2,612
Swan [4]			4	6 20	4	13 22			American	U. S. Navy	180 0	35 6		Cristobal, C. Z	Balboa, C. Z				
Ohioan	5	5 58	5	6.20	5	14 05	5	15 20	American	Amer.-Hawaiian Line	407 7	54.0	20.6	Boston, Mass.	Tacoma, Wash	General	2,950	7,103	4,991
Yorba Linda [1]	5	6.02	5	6 25	5	15.01	5	16 15	American	Standard Transp. Co.	435.0	56.2	21.0	New York, N. Y.	Los Angeles, Calif	Ballast		7,424	5,077
F. J. Luckenbach	4	23.45	5	7 35	5	15.53	5	16.50	American	Luckenbach Line	446.0	56.0	21 8	Boston, Mass	Seattle, Wash	General	4,748	8,508	6,179

[1] Tanker. [2] Motor ship. [3] Launch. [4] Mine sweeper. [5] Scrap iron and cotton.

Teno	4	21.20	5	9.10	5	15.56	5	16.55	Chilean	Chilean Line	421.8	56.0	25.5	New York, N. Y.	Valparaiso, Chile	General	2,908	7,764	4,672
West Ira	5	9.25	5	10.00	5	17.26	5	18.50	American	McCormick S. S. Co.	410.5	54.2	16.0	Mobile, Ala	San Francisco, Cal.	Ballast		6,755	4,892
Rochester [6]	4	13.30	5	11.40	5	18.50			American	U. S. Navy	380.0	64.0	26.6	Brooklyn, N. Y.	Balboa, C. Z				
Myrtlebank [2]	5	12.15	5	12.55	5	20.20	6	00.17	British	Bank Line, Ltd	420.0	53.9	25.8	New York, N. Y.	Davao, P. I	(11)	6,250		
Cordelia [1]	5	12.30	5	14.40	5	22.18	6	7.28	British	Anglo-Saxon Pet. Co.	420.0	54.6	20.0	Falmouth, Eng.	Los Angeles, Calif.	Ballast		6,837	5,043
Edwin Christenson	5	10.55	6	6.15	6	13.30	6	15.00	American	Arrow Line	410.0	54.2	17.7	Jacksonville, Fla.	San Francisco, Cal.	General	2,005	6,603	4,932
Oiltrader [1]	5	19.35	6	7.15	6	14.18	6	15.10	British	Anglo-Saxon Pet. Co.	410.0	53.0	16.0	Tyne, England	Los Angeles, Calif.	Ballast		5,928	3,919
Oroya	5	19.10	6	8.20	6	15.42	6	17.55	British	Pacific Steam Nav. Co.	525.3	63.0	24.3	Liverpool, Eng.	Talcahuano, Chile	General	4,528½	13,137	9,067
Svolder [1] [2]	6	1.30	6	9.55	6	16.52	7	4.00	Norwegian	Waages Tankrederi Co.	408.3	55.3	16.0	•Rotterdam, Holland	Talara, Peru	Ballast		6,466	4,336
Steel Traveler	6	9.10	6	10.55	6	18.18	6	22.04	American	Isthmian S. S. Lines	424.0	56.2	26.0	Philadelphia, Pa.	Singapore, Strt. Set	General	8,431	7,698	5,509
Penelope [1] [2]	6	10.05	6	12.05	6	19.25	7	1.29	Danzig	Standard Oil Co	470.0	63.0	19.0	Malmo, Sweden	Talara, Peru	Ballast		9,302	6,127
Pacific Shipper [2]	5	6.33	6	14.00	6	21.15	7	2.42	British	Furness, Withy & Co.	420.0	58.0	19.0	Glasgow-England	Vancouver, B. C.	General, bananas	1,743	7,892	5,858
New Britian	6	16.00	6	16.30	6	23.29	7	00.54	American	Black Diamond S.S. Co.	386.8	52.2	19.0	Boston, Mass	Seattle, Wash	Coal, general	4,055	5,684	4,082
St. Therese	5–22	15.55	6	20.10	7	3.54	7	5.05	Norwegian	United Fruit Co	294.0	44.0	15.2	Gulfport, Miss	Pt. Armuelles, R.P.	Ties, pilings	1,339	2,629	1,716
Anapaquina [7]			6	10.50	7	12.43			Panaman	United Fruit Co	110.0	15.0	5.0	Cristobal, C. Z	Balboa, C. Z	Bananas	72	89	54
Santa Rita [2]	6	20.10	7	6.10	7	12.43	7	17.46	American	Grace Line	370.0	52.0	22.0	New York, N. Y.	Valparaiso, Chile	General	2,193		
Virginia	7	5.45	7	7.05	7	14.05	8	00.24	American	Panama-Pacific Line	586.4	80.0	27.0	New York, N. Y.	San Francisco, Cal.	General	4,078	25,254	18,170
Arizona	6	11.50	7	7.33	7	16.28	7	17.46	French	French Line	425.0	55.0	22.4	Havre, France	Vancouver, B. C.	General	3,021	7,351	5,189
Finn [2]	6	23.25	7	8.30	7	17.15	7	19.35	Swedish	Colombian Mar. Co.	271.0	41.0	14.8	New York, N. Y.	Buenaventura, Col.	General	542	2,472	1,513
Triumph [2]	7	2.45	7	9.35	7	18.20	7	19.35	American	Roosevelt S. S. Co.,S.B.	456.0	56.0	28.2	New York, N. Y.	Shanghai, China	Case oil, general	7,938	8,278	5,839
Canadian Seigneur	7	8.20	7	10.45	7	19.35	7	20.50	British	Can. Nat. Steamships	400.0	52.0	15.0	Montreal, Canada	Vancouver, B. C.	General	426	5,893	4,182
Manhattan Island	7	9.30	7	11.28	7	20.19	7	21.30	American	Redwood Line	386.8	52.2	20.2	Mobile, Ala	San Francisco, Cal.	General	3,148	5,696	4,125
Anniston City	7	12.20	7	12.35	7	21.21	8	1.44	American	Isthmian S. S. Lines	424.0	56.2	23.6	Galveston, Texas	Moji, Japan	Steel, general	8,313	7,611	5,450
Sally Maersk [2]	7	12.30	7	13.10	7	22.07	7	23.27	Danish	Isbrandtsen Moller	332.0	44.0	16.3	New York, N. Y.	Batavia, Java	General	2,382	3,518	2,510
Hardanger	7	5.30	7	13.56	7	22.12	7	23.27	Norwegian	Westfal. Larsen & Co	388.0	52.3	16.2	Buenos Aires, Arg.	Vancouver, B. C.	General	1,411	5,977	4,375
Phrygia [2]	2	6.05	7	14.20	7	23.00	8	13.40	German	Hamburg-AmericanLine	374.0	54.0	17.0	Hamburg, Germany	Champerico, Guat.	General	3,054	5,417	3,457
Baralt	6	13.45	8	6.05	8	13.43	8	15.15	Dutch	Royal Neth. S. S. Co.	202.0	33.1	12.0	Cristobal, C. Z	Guayaquil, Ecuad'r	General	138	1,183	742
Almagro	7	3.50	8	6.10	8	13.43	8	15.15	British	Pacific Steam Nav. Co.	303.4	42.9	16.0	New York, N. Y.	Callao, Peru	General	1,117	2,826	1,770
S-13 [8]			8	8.33	8	18.04			American	U. S. Navy	231.0	22.0		Cristobal, C. Z	Balboa, C. Z				
S-20 [8]			8	8.33	8	19.02			American	U. S. Navy	231.0	22.0		Cristobal, C. Z	Balboa, C. Z				
Dinteldijk [2]	7	5.25	8	8.45	8	19.12	8	20.40	Dutch	Holland-American Line	485.0	62.0	24.3	Rotterdam, Holland	Vancouver, B. C.	General, bananas	4,577	10,786	7,551
Golden Gate	7	22.20	8	9.50	8	20.04	8	21.35	Norwegian	Scand.-So. Pacific Line	381.5	53.1	24.0	Aalborg, Denmark	Talcahuano, Chile	General	6,108	5,616	3,879
Australind [2]	7	22.50	8	10.45	8	20.47	9	2.28	British	Amer.-Australian Lines	410.0	54.0	20.3	New York, N. Y.	Sydney, Australia	General	3,771	6,903	5,155
Paul Shoup [1]	8	1.25	8	12.15	8	21.49	8	23.00	American	Tidewater Oil Co	424.4	58.2	20.3	New York, N. Y.	San Francisco, Cal.	Ballast		7,333	5,182
Niagara [9]	7	18.40	8	12.35	10	17.45			American	U. S. Navy	243.0	36.0	18.3	Cristobal, C. Z	Balboa, C. Z				
Havel [2]	8	4.15	8	13.15	8	22.34	9	00.05	German	North German Lloyd	474.0	61.0	24.4	Bremen, Germany	Vancouver, B. C.	General	6,576	9,305	6,790
Cubore [2]	8	4.55	8	15.10	9	17.10	9	18.28	American	Calmar S. S. Line	450.0	57.0	28.6	Baltimore, Md.	Bellingham, Wash	Steel, general	10,710	7,956	4,866
Athelmonarch [12]	8	11.15	8	16.30	8	23.50	9	5.54	British	Anglo-Saxon Pet. Co.	475.0	65.3	18.0	Philadelphia, Pa.	San Francisco, Cal.	Ballast		9,664	6,726
C. O. Stillman [12]	8	13.00	8	17.45	9	10.34			British	International Pet. Co	565.0	75.6	24.0	New York, N. Y.	Los Angeles, Calif	Ballast		16,780	9,885
Buccaneer [10]			8		8	10.34			American	Lieut. Downey				Cristobal, C. Z	Gatun, C. Z	Ballast		2	2

[1] Tanker. [6] Cruiser. [7] Motor boat. [8] Submarine. [9] Survey ship. [10] Launch. [11] Case oil and general.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

San Leonardo [1]	1	22.20	2	3.59	2	12.50	2	12.50	British	Anglo-Mexican Pet. Co	401.9	54.2	25.6	Los Angeles, Calif.	England	Casoline	7,136	5,962	3,650
Buenaventura	2	4.30	2	5.51	2	13.55	3	15.10	American	Panama R. R. S. S. Line	251.0	43.0	15.0	Guayaquil, Ecuad'r	New York, N. Y.	(12)	868	2,873	1,776
Canadian Constructor	1	15.00	2	6.08	2	14.00	2	14.00	British	Can. Nat. Steamships	430.0	56.2	18.6	Adelaide, Australia	Montreal, Canada	General	1,800	7,680	5,494

[12] Tagua, cocoa, and balsam.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Arana [1]	2	9 15	2	9 52	2	16 30	3	11 12	British	Pacific Steam Nav. Co	303 4	43 0	14 5	Callao, Peru	New York, N. Y	([17])	560	2,851	1,776
Astral [1]	2	10 45	2	11 28	2	18 33	2	18 33	American	Standard Transp. Co.	439 5	58 0	28 9	Los Angeles, Calif	Providence, R. I.	([18])	10,272	8,913	6,210
Adria [1] [13]	2	19 00	3	4 00	3	11 10	3	11 10	American	Atlantic Tank Reederei	412 0	56 0	25 3	Los Angeles, Calif	Ellesmere Pt., Eng.	Gasoline	8,440	6,579	4,574
Santa Elisa	3	4 45	3	5 55	3	13 50	3	18 08	American	Grace Line	360 3	51 7	26 3	Talcahuano, Chile	New York, N. Y	([17])	4,089	5,957	4,325
El Lobo [1]	3	10 20	3	11 04	3	18 35	3	22 30	British	C. T. Bowring & Co	385 2	51 0	23 6	La Libertad, Ecua	Philadelphia, Pa.	Crude oil	6,126	4,851	3,326
George W. Barnes [1]	3	10 30	3	11 15	3	19 30	3	19 30	American	Huasteca Petroleum Co.	416 8	56 1	26 4	Los Angeles, Calif	Baltimore, Md	Gasoline	9,540	6,763	4,759
Norconian [14]	1	20 00	3	12 10	3	18 00			American	Rex B. Clark	100 3	21 7	7 0	Los Angeles, Calif	Kingston, Jamaica				
Nosa King	3	12 01	3	12 47	3	20 00	4	2 10	American	N. O. & S. A. S. S. Co.	324 0	46 3	22 0	Iquique, Chile	New Orleans, La	Nitrates, beans	4,583	3,978	2,553
Sir Osborn Holmden [1] [13]	3	8 30	3	13 04	3	20 55	3	20 55	Norwegian	Anglo-Saxon Pet. Co.	471 8	64 4	27 0	San Francisco, Cal.	Land's End, Eng	([20])	12,677	9,562	6,604
Harry Luckenbach	3	12 30	3	14 20	3	21 10	3	21 10	American	Luckenbach Line	448 9	60 2	30 6	Portland, Oreg	Mobile, Ala	Lumber, general	9,177	9,282	6,853
Sunewco	3	12 57	3	15 05	3	22 40	4	4 20	American	Transmarine Lines.	324 0	46 2	22 0	Seattle, Wash	New York, N. Y.	Lumber	4,377	3,984	2,612
Santa Inez	3	15 00	4	4 07	4	10 55	4	13 10	American	Grace Line	370 0	53 0	22 6	Valparaiso, Chile	New York, N. Y	Nitrates, general.	3,269		
Greylock	3	17 30	4	5 04	4	12 20	4	12 20	American	Seas Shipping Co	430 7	54 3	26 0	Tacoma, Wash	Baltimore, Md	Lumber, pulp	6,850	7,946	5,698
Sylvan Arrow [1]	4	1 00	4	5 55	4	13 45	4	13 45	American	Standard Transp. Co.	467 6	62 7	27 0	Los Angeles, Calif	New York, N. Y.	Gasoline	11,050	9,698	6,900
Canadian Prospector	4	4 20	4	6 51	4	14 50	4	20 25	British	Can. Nat. Steamships	400 0	52 4	24 6	Vancouver, B. C.	Montreal, Canada	Lumber, general	5,825	5,962	3,650
Panquiaco [15]			4	8 12	4	14 40	4	14 40	Panaman	Panaman Government.	125 6	23 5	14 6	Balboa, C. Z	Cristobal, C. Z				
Pennsylvania	4	9 15	4	9 56	4	17 38	4	17 38	American	Amer.-Hawaiian Line	407 7	53 7	23 2	Portland, Oreg	Boston, Mass	General	5,684	7,107	5,041
Paul Luckenbach	4	12 05	4	13 36	4	21 05	4	21 05	American	Luckenbach Line	471 0	59 2	27 6	Portland, Oreg	Boston, Mass	General	9,417	9,027	6,539
W. H. Libby [1]	4	16 00	5	4 41	5	12 05	5	13 20	American	Standard Shipping Co.	462 5	60 2	26 0	Los Angeles, Calif	New York, N. Y	Gasoline	10,533	8,461	6,104
Steelore	5	4 10	5	5 13	5	15 10	5	15 10	American	Ore S. S. Corp	550 3	72 2	34 0	Cruz Grande, Chile	Baltimore, Md	Iron ore	20 000	15,551	4,297
Courageous [11]	5–30	23 00	5	6 00	5	16 05	5	16 05	American	Roosevelt S. S. Co., S.B.	456 1	56 0	27 6	Manila, P. I.	New York, N. Y	Sugar	9,000	8,308	5,850
Cerigo	5	4 00	5	7 50	5	17 00			German	Hamburg-American Line	227 2	34 4	11 0	Guayaquil, Ecuad'r	Cristobal, C. Z	([21])	303	1,572	1,011
Lycia [13]	5	9 25	5	12 52	5	23 00	5	23 00	British	Canadian Transp. Co	300 5	44 2	21 6	Vancouver, B. C.	Nuevitas, Cuba	Lumber, general	3,467	3,333	2,207
Pelican [16]			5		5				Panaman	Luis Dorati				Balboa, C. Z	Gatun Lake, C. Z.				
Hartbridge	6	6 06	6	00 56	6	9 33	6	9 33	British	Crosby-Magee & Co	390 1	55 0	26 0	Victoria, B. C.	Boston, Mass	Lumber	5,804	6,179	4,521
Palm Branch	6	1 50	6	3 01	6	10 40	6	13 00	British	F. & W. Ritson	360 0	45 1	22 9	Valparaiso, Chile	Liverpool, Eng	Nitrates, general.	4,219	4,195	3,088
Puritas [13]	5	16 10	6	4 34	6	12 30	6	14 30	Italian	Indus. Arma. Genoa	391 7	56 1	24 0	Vancouver, B. C.	Leith, Scotland.	Wheat, lumber	7,000	5,759	4,013
Baralt	6	2 50	6	5 43	6	13 45	8	6 05	Dutch	Royal Neth. S. S. Co.	202 9	33 1	12 0	Guayaquil, Ecuad'r	Cristobal, C. Z	General	309	1,183	742
Dakotan	6	5 52	6	7 11	6	14 47	6	14 47	American	Amer.-Hawaiian Line	407 7	53 7	25 6	Seattle, Wash	Boston, Mass	General	6,067	7,156	5,094
Sunbeam [1]	6	6 40	6	7 48	6	16 04	6	16 05	American	Sun Oil Co	429 3	59 2	26 6	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,164	7,709	5,562
Margarethe Cords	6	10 30	6	11 14	6	19 00	7	10 05	German	Colombian Mar. Co.	266 8	42 1	15 3	Buenaventura, Col.	New York, N. Y.	Coffee, hides	1,330	2,263	1,622
Marian Otis Chandler	6	10 45	6	12 17	6	20 00	6	20 00	American	Arrow Line	409 6	54 1	25 0	Portland, Oreg	Baltimore, Md	Lumber	7,518	6,655	4,870

[1] Tanker. [13] Motor ship. [14] Motor yacht. [15] Revenue cutter. [16] Launch. [17] Coffee, cocoa, and ivory nuts. [18] Kerosene distillate. [19] Copper, nitrates, and general. [20] Gasoline and kerosene. [21] Cocoa, ivory nuts, and lumber.

Nitro	6	13.50	6	14 38	6	23.15	7	1 45	Italian	Soc. An. Com.-Ital. Cil.	421.0	48.8	26.4	Tocopilla, Chile	Norfolk, Va. [24]	Nitrates	7,043	5,742	4,180
Willanglo	6	23.50	7	1.00	7	8.50	7	8 50	American	Quaker Line	409.8	54.2	24.6	Aberdeen, Wash.	New York, N. Y.	Lumber	7,600	6,510	4,827
Storsten [1] [25]	7	3.00	7	4.45	7	11.40	7	15.10	Norwegian	Rofen & Loennechae	388.1	52.7	24.0	Los Angeles, Calif.	Land's End, Eng.	Gasoline	6,537	5,464	3,764
Salavador	7	5.20	7	6.34	7	13.50			British	Pacific Steam Nav. Co.	215.0	35.5	17.0	Champerico, Guat.	Cristobal, C. Z.	(23)	952	1,170	735
Swan			7	6.15	7	13.30			American	U. S. Navy	187.0	32.0		Balboa, C. Z.	Cristobal, C. Z				
San Eduardo [1]	7	7.45	7	8 40	7	17.25	7	21.15	British	Eagle Transport Co.	420.0	54.0	26.0	Los Angeles, Calif.	Lizard's End, Eng. [24]	Gasoline	8,128	6,390	4,382
Niagara [22]			7	9.36	7	18 40	8	12.35	American	U. S. Navy	245.0	36.3		Balboa, C. Z	Cristobal, C. Z				
Esparta	7	10.20	7	11.40	7	18.30	8	14.15	American	United Fruit Co	330.6	44.6	17.9	San Francisco, Cal.	Limon, C. R	Coffee, general	689		
American Star.	7	10 45	7	11.46	7	19.47	7	19.47	American	Charles Nelson & Co.	386.8	52.2	23.5	Seattle, Wash	Baltimore, Md	Lumber, general	6,595	5,699	4,167
Pacific Trader [13]	7	13.00	7	14.10	7	21.55	8	11.40	British	Furness, Withy & Co.	420.0	58.0	26.0	Vancouver, B. C.	Glasgow, Scotland	General		7,905	5,869
Eurypylus	7	13.15	7	14 51	7	23.00	8	1.00	British	Alfred Holt & Co	430.0	54.0	25.6	Davao, P. I.	New York, N. Y.	Sugar, general	6,574	6,887	4,612
Capetown Maru	7	14 40	7	23.05	8	8.30	8	10.18	Japanese	Kokusai Kisen Kaisha.	385.0	51.0	26.6	Iloilo, P. I.	Baltimore, Md	Sugar	7,800	6,209	4,658
Spreewald [14]	7	16.30	7	23 41	8	9 40	8	12.10	German	Hamburg-AmericanLine	399.4	54.2	26.8	Antofagasta, Chile.	New York, N. Y.	Copper ore	8,367	6,791	4,997
Bengloe	7	13.35	8	00.42	8	10.35	8	11.40	British	W. Thomson & Co.	405.1	52.6	23.8	Willapa Har., Wash	W. Hartlepool, Eng.	Lumber, grain.	7,884	5,870	4,359
Port Darwin	7	19.35	8	1 55	8	13.30	9	23 45	British	Com'lth & Dom. Line.	480.0	60.5	23.0	Melbourne, Aust'lia	London, England	Frozen, general	5,677	10,468	7,916
Toba Maru	7	15.15	8	2 53	8	14 15	8	20.24	Japanese	Nippon Yusen Kaisha.	445.0	58.0	24.0	Manila, P. I	New York, N. Y.	General	9,822	8,052	5,743
Hessen	7	23.20	8	3 53	8	15.25	8	22 15	German	Hamburg-AmericanLine	468.5	58.2	27 2	Vancouver, B. C.	Hamburg, Germany	General	9,050	9,568	6,680
Standard Arrow [1]	7	16.00	8	4 59	8	16 20	8	16 20	American	Standard Transp. Co.	467 6	62.7	27.0	Long Beach, Cal.	Bayonne, N. J.	Gasoline		9,698	6,783
Melpomene [1]	7	21 35	8	6 01	8	17 45	8	23 00	French	Cie. Aux. De Navigation	425 0	56 9	26.0	Los Angeles, Calif.	Dunkirk, France.	Gasoline.	9,018	7,085	5,050
Dio	8	2.50	8	6 47	8	18 33	8	18 33	American	Redwood Line	386.8	52.0	23.7	San Francisco, Cal.	New Orleans, La	(26)	6,443	5,708	4,131
Chief Skidgate	8	6 00	8	7.15	8	19 35	8	19 35	British	Can.-Amer. Ship. Co.	483 6	56.0	30.6	Vancouver, B. C.	New York, N. Y.	Lumber	3,920	10,011	7,278
Canadian Challenger.	8	6 45	8	8.45	8	20 50	9	4 35	British	Can. Nat. Steamships	400 1	52.0	16.0	Wellington, N. Z	Montreal, Canada	General	2,006	6,142	4,354
Inapaquina [23]	7	13 43	8	9 17	8	16 20	8	16 20	Panaman	United Fruit Co	105.0	15.0		Balboa, C. Z	Cristobal, C. Z	Ballast		89	54
Edgefield	8	7 20	8	10 15	8	21.55	8	21 55	American	Tampa Interocean Co	409 6	54.2	27.9	Sagay, P. I	New York, N. Y.	Sugar, lumber	8,097	7,476	5,900
Point San Pablo	8	2 25	8	10 15	8	22.20	8	22 20	American	Swayne & Hoyt	324 0	46.2	20.00	Portland, Oreg	New Orleans, La	(27)	2,973	3,984	2,591
Washington [1]	8	9 00	8	10.55	8	23 00	8	23 00	American	The Texas Co	425.8	57 0	26.0	Los Angeles, Calif.	Baltimore, Md	Gasoline	8,874	7,484	5,216
Yorkmar	8	10 50	8	12.02	8	23 20	8	23.20	American	Calmar S. S. Corp	409.8	54.2	25.9	Seattle, Wash	Wilmington, Del.	Lumber	7,667	6,757	4,918
Lt. McCauley [17]			8		8				American	U. S. Navy				Balboa, C. Z	Darien, C. Z				

[1] Tanker. [22] Survey ship. [23] Motor schooner. [24] For orders. [25] Sugar, coffee, and general. [26] Logs, sugar, and general. [27] Lumber, livestock, explosives, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
June 2	Patores	United Fruit Co	Port Limon, Costa Rica.
June 3	Ulua	United Fruit Co.	New York via Habana.
June 4	Camden	United Fruit Co	Curacao, D. W. I.
June 4	Suriname	United Fruit Co	Puerto Colombia.
June 4	Grunewald	Hamburg-American Line	Hamburg via wayports.
June 5	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
June 5	Zacapa	United Fruit Co	New York via Kingston.
June 5	Cundinamarca [28]	Scadta Airplane Co	Barranquilla, Colombia.
June 5	Manaqui	United Fruit Co	New York via wayports.

* DEPARTURES.

Date.	Vessel.	Line.	For—
June 2	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
June 2	Pastores	United Fruit Co	New York via Habana.
June 2	Simon Bolivar	Royal Neth. S. S. Co	Amsterdam via wayports.
June 3	Cartago	United Fruit Co	New Orleans via wayports.
June 5	Ulua	United Fruit Co	Port Limon, Costa Rica.
June 5	Grunewald	Hamburg-American Line	Port Limon, Costa Rica.
June 5	Camden	United Fruit Co	Port Limon, Costa Rica.
June 5	Suriname	United Fruit Co	Bocas, R. P.
June 6	Cundinamarca [28]	Scadta Airplane Co	Barranquilla, Colombia.

[28] Air mail carrier.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From	Date.	Vessel.	Line.	For—
June 6	Galicia	Hamburg-American Line	Tampico, Mexico.	June 6	Zacapa	United Fruit Co	New York via wayports.
June 6	Saramacca	United Fruit Co	New Orleans, La.	June 6	William M. [16]	G. I. Bryan	Bluefields, Nicaragua.
June 6	Texas	The Texas S. S. Co	Port Arthur, Texas.	June 6	Managui	United Fruit Co	New York via Kingston.
June 6	No. 9664 [29]	Pan-American Airways	Managua via wayports.	June 6	No. 9685 [29]	Pan-American Airways	Managua via David.
June 6	William M. [16]	G. I. Bryan	Colon, R. P.	June 7	Bastidas [32]	Colombian Government	Puerto Colombia.
June 7	Atlantida	Standard Fruit & S. S. Co	New Orleans via Habana.	June 7	Saramacca	United Fruit Co	Cartegena via wayports.
June 7	Suriname	United Fruit Co	Bocas, R. P.	June 7	Galicia	Hamburg-American Line	Puerto Colombia.
June 7	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	June 7	No. 8020 [29]	Pan-American Airways	Guayaquil via wayports.
June 7	Anachucuna [31]	United Fruit Co	Colon, R. P.	June 7	Anachucuna [31]	United Fruit Co	Colon, R. P.
June 7	Annette I. [31]	A. Tagarapulos	Colon, R. P.	June 7	Annetta I. [31]	A. Tagarapulos	Colon, R. P.
June 8	Cavina	Elders & Fyffes, Ltd	Avonmouth via wayports.	June 8	Atlantida	Standard Fruit & S. S. Co	New Orleans via wayports.
June 8	Parismina	United Fruit Co	New Orleans via Habana	June 8	Cavina	Elders & Fyffes, Ltd	Bristol via Kingston.
June 8	Maravi	United Fruit Co	Puerto Colombia.	June 8	Texas	The Texas S. S. Co	Tampico, Mexico.
June 8	No. 9685 [29]	Pan-American Airways	Managua via David.	June 8	No. 9664 [29]	Pan-American Airways	Managua via David.
				June 8	Suriname	United Fruit Co	New Orleans, La.

[29] Air mail carrier. [16] Schooner. [31] Motor boat. [32] Tug.

PORT OF BALBOA.

June 6	Rakoyo Maru	Nippon Yusen Kaisha	Hongkong, China.	June 6	Rakoyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
June 6	Bokuyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.	June 6	Bokuyo Maru	Nippon Yusen Kaisha	Hongkong, China.
June 6	San Luis [33]	Chiriqui Land Co	Pto. Armuelles, R. P.	June 6	San Luis [33]	Chiriqui Land Co	Pt. Armuelles, R. P.
June 7	A. B. Obarrio [33]	Pacific Fruit Co	Bayano River, R. P.	June 7	A. B. Obarrio [33]	Pacific Fruit Co	Panama Bay, R. P.
June 7	Dos Hermanos [34]	A. Valdez	Bayano River, R. P.	June 7	Dos Hermanos [34]	A. Valdez	Panama Bay, R. P.
June 7	Sambu [33]	Hans Elliot	El Real, R. P.	June 7	Sambu [33]	Hans Elliot	Panama Bay, R. P.
June 7	Big Bill [34]	Hans Elliot	El Real, R. P.	June 7	Big Bill [34]	Hans Elliot	Panama Bay, R. P.

[33] Motor schooner. [34] Motor yacht. * Other than ships passing through the Canal.

Tanker Traffic Through the Panama Canal in May, 1929.

During the month of May, 1929, 101 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 538,440, on which tolls of $472,454.05 were collected. Cargo amounted to 473,363 tons. In point of net tonnage, tanker traffic increased 41.3 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage increased 25.7 per cent over the cargo tonnage of May, 1928.

Tanks ships comprised 19.2 per cent of the total commercial transits through the Canal during the month; made up 21.2 per cent of the total Panama Canal net tonnage; were the source of 24.5 of the tolls collected; and carried 18.6 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tankships transiting the Canal during the month of May, 1929, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals, for the two preceding months and for May, 1928:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	11	53,323	$39,766.85	7,652
Dutch	1	3,132	2,255.04	.....
French	1	5,050	3,636.00	.....
German	1	4,574	3,293.28	.....
Norwegian	4	21,201	15,264.72	.....
United States	34	199,107	146,391.76	12,027
Totals, May, 1929	52	286,387	210,607.65	19,679
Totals, April, 1929	39	215,199	159,166.70	22,876
Totals, March, 1929	46	243,023	182,092.48	39,581
Totals, May, 1928	32	170,811	125,686.91	12,995
Pacific to Atlantic.				
British	12	60,028	63,447.15	111,509
Danish	1	4,097	4,193.75	7,480
Danzig	1	5,927	6,508.75	11,300
Dutch	2	9,408	10,080.00	16,777
Norwegian	4	17,565	18,640.00	32,727
Swedish	1	6,295	6,486.25	11,396
United States	[1]28	[1]148,733	[1]152,490.50	[1]262,495
Totals, May, 1929	49	252,053	261,846.40	453,684
Totals, April, 1929	43	229,158	231,886.59	397,783
Totals, March, 1929	50	278,540	280,901.74	492,078
Totals, May, 1928	41	209,621	216,418.53	363,702

[1] Includes 1 tanker of coconut oil, Panama Canal net 5,099, tolls $5,305.00, 6,406 tons of cargo; 1 tanker of molasses, Panama Canal net 4,389, tolls $4,743.75, 9,374 tons of cargo; and 1 tanker of coconut oil, Panama Canal net 4,303, tolls $3,843.75, 6,154 tons of cargo.

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months, and for May, 1928:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
May, 1929	41	227,722	$165,842.76	1,277
April, 1929	22	121,872	87,747.84	.....
March, 1929	33	181,815	130,979.85	.....
May, 1928	26	139,992	100,794.24	.....
From Los Angeles.				
May, 1929	35	181,003	186,620.50	322,997
April, 1929	27	149,491	150,532.45	258,776
March, 1929	35	192,325	193,401.10	344,736
May, 1928	26	138,180	144,904.45	255,893

Commercial Traffic Through the Panama Canal in May, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of May, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for May, 1928, and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
United States intercoastal:							
United States	92	472,989	365,745	588,266	365,231	$407,099.99	267,326
East coast of United States to west coast of South America:							
British	7	27,851	21,936	36,358	22,319	24,705.69	11,132
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	2,749
German	2	2,789	2,592	3,340	1,940	3,193.90	1,137
Swedish	2	8,917	7,486	30,676	8,762	6,420.24	.....
United States	14	58,731	48,012	82,096	47,271	48,340.43	23,652
Totals	26	102,993	83,492	159,780	84,268	86,992.76	38,670
Europe to west coast of South America:							
British	7	42,013	33,067	55,221	33,591	40,182.01	20,077
Chilean	1	1,417	1,347	2,221	1,319	1,020.24	.....
Dutch	3	17,431	11,438	19,391	11,493	14,297.50	13,090
French	3	13,469	11,785	17,808	11,727	14,610.30	4,640
German	4	20,124	14,187	22,336	13,466	17,733.75	24,034
Greek	1	3,433	2,234	3,536	2,223	2,792.50	5,400
Italian	1	9,329	5,176	11,718	6,750	6,470.00	1,245
Norwegian	2	9,192	5,836	9,557	5,783	7,295.00	13,319
Yugoslav	2	8,592	6,749	10,871	6,723	8,436.25	13,511
Totals	24	125,000	91,819	152,659	93,075	112,838.55	95,316
East coast of United States to Far East:							
British	6	32,145	18,291	31,116	18,396	22,863.75	35,235
Danish	2	5,683	4,768	7,857	4,785	5,960.00	6,430
Japanese	6	28,487	24,015	36,316	23,335	30,018.75	41,213
Norwegian	3	12,723	7,435	12,935	7,399	9,293.75	21,521
United States	4	23,575	17,182	27,463	17,038	20,205.45	23,012
Totals	21	102,613	71,691	115,687	70,953	88,341.70	127,411
Europe to west coast Canada:							
British	7	37,690	29,246	47,202	29,358	34,301.90	12,555
Dutch	2	13,679	10,642	16,989	10,604	13,302.50	6,034
French	2	9,766	7,442	12,059	7,443	9,302.50	6,337
German	3	19,238	12,869	21,239	12,972	16,086.25	15,200
Italian	2	12,538	9,997	15,181	9,583	12,496.25	3,572
Norwegian	1	5,637	4,509	7,116	4,493	5,636.25	8,886
Totals	17	98,548	74,705	119,786	74,453	91,125.65	52,584
Europe to west coast of United States:							
British	4	18,234	16,115	26,583	16,149	13,128.48	..
Danish	1	4,467	2,690	4,473	2,737	3,216.24	.
Dutch	1	3,132	2,760	4,647	2,642	2,255.04	.....
French	1	5,050	4,356	7,011	3,989	3,636.00	.....
German	2	10,918	7,658	13,111	7,673	8,075.78	5,501
Norwegian	5	27,154	21,487	36,133	21,469	19,710.97	2,041
Swedish	1	5,221	3,097	5,234	3,602	3,871.25	7,500
United States	1	6,396	5,428	8,946	5,429	4,605.12	..
Totals	16	80,572	63,591	106,138	63,690	58,498.88	15,042
East coast of United States to Australasia:							
British	7	33,988	24,835	39,806	24,729	31,043.75	40,849
Norwegian	2	9,004	4,996	8,629	4,968	6,245.00	14,020
United States	3	16,353	12,995	18,820	12,710	16,243.75	7,505
Totals	12	59,345	42,826	67,255	42,407	53,532.50	62,374

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Cristobal, C. Z., to west coast of South America:							
Colombian	4	1,257	1,196	1,948	1,210	$1,476.50	1,122
Dutch	1	742	294	780	323	367.50	229
German	5	4,046	3,084	5,551	3,137	3,614.77	3,135
Peruvian	1	2,405	989	3,305	1,514	1,236.25	308
Totals	11	8,450	5,563	11,584	6,184	6,695.02	4,794
Europe to Australasia:							
British	7	53,814	39,940	63,803	39,928	49,925.00	56,130
Around the World:							
British	2	11,258	8,548	13,792	8,572	10,685.00	9,296
Swedish	1	6,190	3,278	5,841	4,083	4,097.50	6,992
United States	3	26,867	20,719	34,183	20,719	25,898.75	13,332
Totals	6	44,315	32,545	53,816	33,374	40,681.25	29,620
East coast of United States to west coast of Canada:							
British	1	4,262	3,029	4,867	2,999	3,068.64	.....
United States	5	23,542	17,346	27,742	17,024	21,682.50	38,425
Totals	6	27,804	20,375	32,609	20,023	24,751.14	38,425
Cristobal, C. Z., to west coast of United States:							
Panaman	1	2,606	1,384	3,644	2,594	1,730.00	3,356
United States	3	6,993	6,393	10,292	6,363	7,938.20	2,175
Totals	4	9,599	7,777	13,936	8,957	9,668.20	5,531
Cristobal to west coast of Central America:							
British	3	2,063	1,900	3,436	1,906	2,353.90	2,999
Norwegian	1	504	423	732	391	528.75	286
Totals	4	2,567	2,323	4,168	2,297	2,882.65	3,285
Canadian intercoastal:							
British	3	8,521	6,777	11,626	7,731	8,404.08	4,290
East coast of United States to Philippine Islands:							
British	1	5,001	3,800	6,055	3,790	4,750.00	5,377
United States	2	12,062	8,803	13,274	8,258	11,003.75	17,448
Totals	3	17,063	12,603	19,329	12,048	15,753.75	22,825
East coast Canada to Australasia:							
British	3	15,553	12,008	19,386	12,068	15,010.00	14,584
East coast of Canada to west coast of South America:							
British	2	13,526	11,952	22,618	12,626	9,738.00	.....
West Indies to west coast of Canada:							
Norwegian	2	7,703	6,265	9,825	5,955	7,831.25	11,204
West Indies to Far East:							
British	2	8,890	6,445	10,374	6,449	8,056.25	14,732
East coast of South America to west coast of United States:							
Norwegian	1	4,722	2,728	4,624	2,765	3,410.00	2,303
United States	1	5,040	3,731	5,823	3,705	4,663.75	5,003
Totals	2	9,762	6,459	10,447	6,470	8,073.75	7,306
Europe to west coast of Central America:							
British	1	4,058	3,205	5,213	3,210	4,006.25	5,500
German	1	3,272	2,517	4,165	2,547	3,146.25	3,183
Totals	2	7,330	5,722	9,378	5,757	7,152.50	8,683
Foreign ships in ballast—United States intercoastal:							
British	1	6,386	5,524	8,780	5,145	4,597.92	.....
East coast of United States to Hawaiian Islands:							
United States	1	1,740	1,542	2,647	1,542	1,927.50	3,006

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
East coast of Canada to Far East:							
British	1	6,889	4,489	7,049	4,511	$5,611.25	7,994
West Indies to west coast of United States:							
United States	1	6,070	5,140	8,207	5,092	4,370.40	
West Indies to west coast of South America:							
French	[1] 1					5,875.00	
Central American intercoastal:							
Norwegian	1	2,268	1,859	3,124	1,868	2,323.75	3,471
East coast of Central America to west coast United States:							
United States	1	2,234	2,096	3,266	2,040	2,620.00	688
East coast of Central America to west coast South America:							
British	1	4,343	3,601	5,923	3,616	4,501.25	7,652
South American intercoastal:							
United States	1	950	923	1,768	981	1,140.00	240
East coast of South America to west coast of Canada:							
United States	1	4,989	3,517	5,550	3,517	4,396.25	2,757
East coast of South America to Far East:							
Japanese	1	5,821	4,170	7,267	4,387	5,212.50	3,670
Europe to Balboa, C. Z.:							
United States	1	5,935	4,340	7,075	4,323	5,425.00	10,750
Egypt to west coast of United States.							
British	1	4,514	3,560	5,587	3,513	3,250.08	
Grand totals, May, 1929	278	1,329,095	1,011,384	1,668,713	1,014,479	1,164,303.77	920,360
Grand totals, May, 1928	243	1,082,871	835,725	1,363,566	832,286	962,722.86	725,345
Grand totals, May, 1927	254	1,213,276	937,887	1,527,638	941,128	1,043,949.52	758,941

[1] Naval vessel of 11,750 displacement tons.

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	79	399,828	310,205	497,507	311,113	$387,510.50	560,343
West coast of South America to east coast of United States:							
British	12	54,114	44,466	74,375	45,675	55,582.50	92,394
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	4,891
German	3	9,228	6,092	9,853	5,869	7,615.00	14,669
Japanese	1	4,611	4,223	5,838	4,219	5,278.75	8,250
Norwegian	1	3,347	2,389	4,044	2,307	2,986.25	6,350
Panaman	1	4,897	4,014	6,386	4,067	5,017.50	8,891
Swedish	1	4,421	3,743	15,339	4,377	4,678.75	21,850
United States	11	52,403	43,139	72,845	42,638	53,742.15	111,841
Totals	31	137,693	111,499	195,990	113,128	139,192.15	269,136
West coast of Canada to Europe:							
British	13	70,004	48,970	79,371	49,164	61,212.50	97,775
Dutch	2	12,678	10,266	16,039	10,236	12,832.50	19,567
French	1	5,563	4,282	6,863	4,287	5,352.50	8,420
German	4	24,596	17,216	28,745	17,421	21,520.00	34,301
Norwegian	2	10,372	7,973	12,855	8,065	9,966.25	14,716
United States	1	5,245	3,843	6,188	3,822	4,803.75	8,286
Totals	23	128,458	92,550	150,061	92,995	115,687.50	183,065
West coast of United States to Europe:							
British	8	35,170	28,648	46,569	28,923	35,810.00	56,719
Danish	1	4,097	3,355	5,722	3,406	4,193.75	7,480
Dutch	2	9,408	8,064	13,246	7,709	10,080.00	16,777
Italian	1	6,054	5,031	7,061	4,460	6,288.75	9,014
Norwegian	5	23,419	19,591	32,955	19,487	24,488.75	41,211
Swedish	1	6,295	5,189	8,945	6,592	6,486.25	11,396
United States	1	8,619	7,026	11,247	6,955	8,782.50	15,900
Totals	19	93,062	76,904	125,745	77,532	96,130.00	158,497

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
West coast of South America to Europe:							
Belgian	1	6,211	4,522	7,130	4,013	$5,652.50	9,800
British	4	25,208	18,987	31,780	19,740	23,733.75	27,577
Chilean	[1] 1					14,892.00	
Danzig	1	5,927	5,207	8,744	5,026	6,508.75	11,300
Dutch	1	4,798	4,050	6,908	3,924	5,068.75	8,794
German	6	28,413	19,127	31,177	18,830	23,415.26	35,533
Italian	1	7,420	5,418	12,003	6,058	6,772.50	2,764
Norwegian	1	3,820	2,333	3,886	2,335	2,916.25	5,573
Yugoslav	1	4,189	3,259	5,387	3,272	4,073.75	8,349
Totals	17	85,986	62,903	107,015	63,198	93,033.51	109,690
West coast of South America to Cristobal, C. Z.:							
Colombian	5	1,349	1,277	2,101	1,278	1,587.15	1,480
Dutch	1	742	294	780	323	367.50	488
German	6	4,930	3,497	6,401	3,590	4,371.25	2,864
Totals	12	7,021	5,068	9,282	5,191	6,325 90	4,832
Philippine Islands to east coast United States:							
Danish	1	2,562	1,481	2,480	1,471	1,851.25	3,835
Japanese	5	24,634	21,840	31,512	21,353	26,953.10	38,126
Norwegian	1	4,530	2,508	4,268	2,498	3,135.00	7,500
United States	4	22,264	16,877	24,255	15,070	21,096.25	34,092
Totals	11	54,290	42,706	62,515	40,392	53,035.60	83,553
Australasia to Europe:							
British	9	76,434	55,955	91,802	57,241	69,943.75	49,472
West coast of Canada to east coast United States:							
British	3	12,845	8,623	13,724	8,528	10,778.75	18,778
Japanese	1	5,175	4,067	6,537	4,049	5,083.75	8,220
Norwegian	1	5,136	4,112	6,552	4,122	5,140.00	8,400
Swedish	1	3,528	2,417	4,104	3,128	3,021.25	6,095
United States	1	5,542	4,280	6,896	4,267	5,350.00	7,286
Totals	7	32,226	23,499	37,813	24,094	29,373.75	48,779
West coast of United States to Cristobal, C. Z.:							
Panaman	1	2,603	1,383	2,461	1,384	1,728.75	1,128
United States	5	11,368	10,457	16,786	10,282	13,018.20	4,146
Totals	6	13,971	11,840	19,247	11,666	14,746.95	5,274
West coast of South America to east coast Canada:							
British	4	21,277	18,872	33,966	20,638	23,590.00	45,676
West coast of Central America to Cristobal, C. Z.:							
British	3	2,063	1,900	3,436	1,906	2,375.00	2,178
German	1	855	722	1,306	717	920,50	144
Totals	4	2,918	2,622	4,742	2,623	3,277.50	2,322
West coast of United States to West Indies:							
United States	3	13,068	10,226	16,602	10,241	12,782 50	22,227
Australasia to east coast of Canada:							
British	3	12,647	9,801	16,306	9,975	12,251.25	8,476
Around the World:							
British	1	16,521	10,086	20,175	12,162	12,607.50	
German	1	12,735	7,772	19,692	9,931	9,715.00	
Totals	2	29,256	17,858	39,867	22,093	22,322.50	
Canadian intercoastal:							
British	2	8,486	6,357	10,310	6,360	7,946.25	12,894
Australasia to east coast of United States:							
British	1	4,129	3,258	5,334	3,242	4,072.50	2,032
United States	1	5,102	3,973	6,326	3,973	4,966.25	6,688
Totals	2	9,231	7,231	11,660	7,215	9,038.75	8,720

[1] Naval vessel of 29,784 displacement tons.

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Hawaiian Islands to east coast United States:							
United States	2	6,129	5,337	8,378	5,054	$6,671 25	12,684
West coast of Central America to Cristobal, C. Z.:							
French	1	5,580	4,237	7,030	4,265	5,296 25	8,942
German	1	3,533	2,542	4,201	2,554	2,543 76	
Totals	2	9,113	6,779	11,231	6,819	7,840 01	8,942
Balboa, C. Z. to Cristobal, C.Z.							
Norwegian	1	504	423	732	391	362 88	
United States	1	20	15	20	16	14 40	
Totals	2	524	438	752	407	377 28	
Central American intercoastal:							
German	1	3,500	2,809	4,611	2,784	2,520 00	
South American intercoastal:							
British	1	4,345	3,757	6,094	3,664	3,128 40	
West coast of United States to east coast South America:							
British	1	5,261	3,544	5,714	3,620	4,430 00	4,150
Far East to east coast of United States:							
Japanese	1	4,773	3,516	5,652	3,451	4,395 00	3,563
West coast of South America to West Indies:							
United States	1	4,068	2,817	4,661	2,921	3,521 25	7,100
Far East to West Indies:							
Norwegian	1	4,245	2,537	4,362	2,516	3,171 25	7,084
Grand totals, May, 1929	246	1,167,810	897,630	1,481,885	906,931	1,132,242 80	1,616,479
Grand totals, May, 1928	265	1,191,741	936,169	1,519,638	935,267	1,156,246 97	1,772,243
Grand totals, May, 1927	217	1,035,616	820,134	1,348,764	825,588	1,022,121 21	1,620,772

Traffic by Nationality for May, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of May, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for May, 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
British	67	340,998	258,268	424,795	260,606	$300,184 20	248,402
Chilean	2	6,122	4,813	9,531	5,295	5,352 74	2,749
Colombian	4	1,257	1,196	1,948	1,210	1,476 50	1,122
Danish	3	10,150	7,458	12,330	7,522	9,176 24	6,430
Dutch	7	34,984	25,134	41,807	25,062	30,222 54	19,353
French	17	28,285	23,583	36,878	23,159	[1]33,423 80	10,977
German	17	60,387	42,907	69,742	41,735	51,850 70	52,190
Greek	1	3,433	2,234	3,536	2,223	2,792 50	5,400
Italian	3	21,867	15,173	26,899	16,333	18,966 25	4,817
Japanese	7	34,308	28,185	43,583	27,722	35,231 25	44,883
Norwegian	18	78,907	55,538	92,675	55,091	62,274 72	77,051
Panaman	1	2,606	1,384	3,644	2,594	1,730 00	3,356
Peruvian	1	2,405	989	3,305	1,514	1,236 25	308
Swedish	4	20,328	13,861	41,751	16,447	14,388 99	14,492
United States	134	674,466	523,912	845,418	521,243	587,560 84	415,319
Yugoslav	2	8,592	6,749	10,871	6,723	8,436 25	13,511
Totals, May, 1929	278	1,329,095	1,011,384	1,668,713	1,014,479	1,164,303 77	920,360
Totals, May, 1928	243	1,082,871	835,725	1,363,566	832,286	962,722 86	725,345
Totals, May, 1927	254	1,213,276	937,887	1,527,638	941,128	1,043,949 52	758,941

[1] Includes naval vessel of 11,750 displacement tons.

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	6,211	4,522	7,130	4,013	$5,652.50	9,800
British	65	348,504	263,224	438,956	270,838	327,462.15	418,121
Chilean	[1]2	4,672	3,433	7,310	3,976	[1]19,183.25	4,891
Colombian	5	1,349	1,277	2,101	1,278	1,587.15	1,480
Danish	2	6,659	4,836	8,202	4,877	6,045.00	11,315
Danzig	1	5,927	5,207	8,744	5,026	6,508.75	11,300
Dutch	6	27,626	22,674	36,973	22,192	28,348.75	45,626
French	2	11,143	8,519	13,893	8,552	10,648.75	17,362
German	23	87,790	59,777	105,986	61,696	72,602.77	87,511
Italian	2	13,474	10,449	19,064	10,518	13,061.25	11,778
Japanese	8	39,493	33,646	49,539	33,072	41,710.60	58,159
Norwegian	13	55,373	41,866	69,654	41,721	52,166.63	90,834
Panaman	2	7,500	5,397	8,847	5,451	6,746.25	10,019
Swedish	3	14,244	11,349	28,388	14,097	14,186.25	39,341
United States	110	533,656	418,195	671,711	416,352	522,259.00	790,593
Yugoslav	1	4,189	3,259	5,387	3,272	4,073.75	8,349
Totals, May, 1929	246	1,167,810	897,630	1,481,885	906,931	1,132,242.80	1,616,479
Totals, May, 1928	265	1,191,741	936,169	1,519,638	935,267	1,156,246.97	1,772,243
Totals, May, 1927	217	1,035,616	820,134	1,348,764	825,588	1,022,121.21	1,620,772

[1] Includes naval vessel of 29,784 displacement tons.

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
Belgian	1	6,211	4,522	7,130	4,013	$5,652.50	9,800
British	132	689,502	521,492	863,751	531,444	627,646.35	666,523
Chilean	[2]4	10,794	8,246	16,841	9,271	24,535.99	7,640
Colombian	9	2,606	2,473	4,049	2,488	3,063.65	2,602
Danish	5	16,809	12,294	20,532	12,399	15,221.24	17,745
Danzig	1	5,927	5,207	8,744	5,026	6,508.75	11,300
Dutch	13	62,610	47,808	78,780	47,254	58,571.29	64,979
French	[2]9	39,428	32,102	50,771	31,711	[2]44,072.55	28,339
German	40	148,177	102,684	175,728	103,431	124,453.47	139,701
Greek	1	3,433	2,234	3,536	2,223	2,792.50	5,400
Italian	5	35,341	25,622	45,963	26,851	32,027.50	16,595
Japanese	15	73,801	61,831	93,122	60,794	76,941.85	193,042
Norwegian	31	134,280	97,404	162,329	96,812	114,441.35	167,885
Panaman	3	10,106	6,781	12,491	8,045	8,476.25	13,375
Peruvian	1	2,405	989	3,305	1,514	1,236.25	308
Swedish	7	34,572	25,210	70,139	30,544	28,575.24	53,833
United States	244	1,208,122	942,107	1,517,129	937,595	1,109,819.84	1,205,912
Yugoslav	3	12,781	10,008	16,258	9,995	12,510.00	21,860
Totals, May, 1929	524	2,496,905	1,909,014	3,150,598	1,921,410	2,296,546.57	2,536,839
Totals, May, 1928	508	2,274,612	1,771,894	2,883,204	1,767,553	2,118,969.83	2,497,588
Totals, May, 1927	471	2,248,892	1,758,021	2,876,402	1,766,716	2,066,070.73	2,379,713

[2] Includes naval vessel of 29,784 displacement tons. [3] Includes naval vessel of 11,750 displacement tons.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending June 8, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo— Discharged	Cargo— Laded.
				Tons.	*Tons.*
Caldas	National Navigation Co	June 2	June 2		34
Bokuyo Maru	Nippon Yusen Kaisha	June 6	June 6		25
Rakuyo Maru	Nippon Yusen Kaisha	June 6	June 6	112	
Toba Maru	Nippon Yusen Kaisha	June 7	June 8	77	
Santa Rita	Grace Line	June 7	June 7		6
Virginia	Panama-Pacific Line	June 7	June 7		186

Storage for Automobiles on Wheels on Pier 6, Cristobal.

Due to the receipt and transshipment at Cristobal of increasing numbers of automobiles on wheels it has become necessary to add to the storage space at the terminal. This was done by the erection of a mezzanine floor some 13 feet above the deck of the dock, with the necessary ramp within Pier 6 shed near the outer end. The floor is within the four central bays of the pier and is approximately 90 feet long by 75 feet in width. It affords storage for approximately 60 automobiles while at the same time the space below the mezzanine is used for the storage of general cargo. Cars are hauled up the ramp by means of tractor and neccessary tackle.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Two Weeks Ending June 8, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Adolf von Baeyer	Hamburg-American Line		May 26		724
Ancon	Panama R. R. S. S. Line		May 26		878
Cauca	National Navigation Co		May 26		136
Wanks	Standard Fruit & S. S. Co.		May 26		11
Calamares	United Fruit Co	May 26	May 26	8	302
Santa Cecelia	Grace Line	May 26	May 26	21	67
Essequibo	Pacific Steam Nav. Co	May 27	May 27	(1)	37
Acajutla	Pacific Steam Nav. Co		May 27		1,131½
Heredia	United Fruit Co		May 27		222
Pastores	United Fruit Co	May 27	May 29	606	52
Colombo	Italian Line	May 27	May 29	162	856
Loreto	Pacific Steam Nav. Co	May 28	May 29	77	75
Atrato	Colombian Transp. Co	May 28		21	
Breda	Royal Neth. S. S. Co	May 28	May 29	297	142
Seattle	Hamburg-American Line	May 28	May 29	8	305
Guatemala	Panama Mail S. S. Co	May 28	May 29	679	125
Buenos Aires	Spanish Line		May 29		340
Ordunia	Pacific Steam Nav. Co	May 29	May 29	40	148
Feltre	Nav. Libera-Triestina	May 29	May 30	220	(2)
Ecuador	Panama Mail S. S. Co	May 29	May 30	465	421
Sixaola	United Fruit Co	May 29	May 30	924	462
Suriname	United Fruit Co	May 30	May 30	407	(2)
Pellgra	Italo-Cilena Line	May 30	June 1	40	(2)
Pennsylvanie	French Line	May 30	May 30	140	9
Simon Bolivar	Royal Neth. S. S. Line	May 30	May 30	100	24
Tactician	T. & J. Harrison Line	May 30	May 31	669	2
Nosa Prince	N. O. & S. A. S. S. Co	May 30	May 31	7	295
Coppename	United Fruit Co	May 31	May 31	3½	411
Guayaquil	Panama R. R. S. S. Line	May 31	June 1	886	35
San Mateo	United Fruit Co	May 31	June 1	1,163	127
City of Panama	Panama Mail S. S. Co	May 31		1,385	
Perene	Peruvian Line	May 31		138	
Amapola	Standard Fruit & S. S. Co	May 31	June 1	260	462
Planet	Hamburg-American Line	May 31		96	
Cali	North German Lloyd	May 31		628	
Caldas	National Navigation Co	May 31		147	
Floreana	Colombian Transp. Co	May 31		318	
Wanks	Standard Fruit S. S. Co	May 31		143	
Ninian	Leyland Line		June 1		701
Cartago	United Fruit Co	June 1		994	
Simon Bolivar	Royal Neth. S. S. Co	June 1		14	
Annie Johnson	Johnson Line	June 1		313	
Linda S	R. Feuillebois	June 1	June 1	(1)	24
Juan	United Fruit Co	June 1	June 1	(1)	484½
Perene	Peruvian Line		June 2		20
Planet	Hamburg-American Line		June 2		230
Cali	North German Lloyd		June 2		179
Caldas	National Navigation Co		June 2		205
Wanks	Standard Fruit & S. S. Co		June 2		¾
Simon Bolivar	Royal Neth. S. S. Co		June 2		702
Annie Johnson	Johnson Line		June 2		39
Durazzo	Hamburg-American Line		June 2		145
Pastores	United Fruit Co	June 2	June 2	7½	401
Cartago	United Fruit Co		June 3		337
Buenaventura	Panama R. R. S. S. Line	June 2	June 3	50	473
Arana	Pacific Steam Nav. Co	June 2	June 3	238	21

[1] No cargo discharged. [2] No cargo laded.

Name of vessel.	Line or charterer	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Phygia	Hamburg-American Line	June 2	June 7	126	953
San Mateo	United Fruit Co	June 3	June 3	(1)	½
Ulua	United Fruit Co	June 3	June 5	436	113
Santa Inez	Grace Line	June 4	June 4	50	(2)
Grunewald	Hamburg-American Line	June 4	June 5	131	14
Camden	United Fruit Co	June 4	June 6	4,908	(2)
Suriname	United Fruit Co	June 4	June 6	¼	163
Pacific Shipper	Furness, Withy & Co	June 5	June 6	(1)	292
Oroya	Pacific Steam Nav. Co	June 5	June 6	201	1½
Managui	United Fruit Co	June 5	June 6	949	336
Zacapa	United Fruit Co	June 5	June 6	569	619
Cristobal	Panama R. R. S. S. Line	June 5		3,917	
Cerigo	Hamburg-American Line	June 5		382	
William M.	R. Feuillebois	June 6	June 6	(1)	29½
St. Theresa	United Fruit Co		June 7		467
Texas	Texas Oil Co	June 6	June 7	7,471	(2)
Saramacca	United Fruit Co	June 6	June 7	483	(3)
Arizona	French Line	June 6	June 7	109	5
Galicia	Hamburg-American Line	June 6	June 7	2	1,144
Finn	Colombian Maritime Co	June 6	June 7	2	(2)
Margarethe Cords	Colombian Maritime Co	June 6	June 7	352	(2)
Baralt	Royal Neth. S. S. Co	June 6	June 8	350	142
Suriname	United Fruit Co	June 7	June 8	166½	562
Esparta	United Fruit Co	June 7	June 8	850	157
Dinteldijk	Holland-American Line	June 7	June 8	22	344
Atlantida	Standard Fruit & S. S. Co	June 7	June 8	359	539
Almagro	Pacific Steam Nav. Co	June 7	June 8	7	161
Salvador	Pacific Steam Nav. Co	June 7		952	
Wanks	Standard Fruit & S. S. Co	June 7		160	
Parismina	United Fruit Co	June 8		1,302	
Hessen	Hamburg-American Line	June 8	June 8	(1)	158
Maravi	United Fruit Co	June 8		547	
Toba Maru	Nippon Yusen Kaisha	June 8	June 8	176	(2)
Cavina	Elders & Fyffes, Ltd	June 8	June 8	32	(2)
Port Darwin	Com'lth & Dom. Line	June 8		307	

[1] No cargo discharged. [2] No cargo laded. [3] Three cases.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective May 28, 1929:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.22
Brass, sheet, average	Lb.	.35
Bronze, Tobin, average	Lb.	.21
Gasoline, motor grade	Gal.	.14½
Metal, yellow	Lb.	.24
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.17
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals	1.50
Oil, ammonia, cylinder	Gal.	.28
Oil, burning, Colza	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135	Gal.	.43
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250	Gal.	.58
Oil, engine, gas, extra heavy, in drums, Gulftriton No. 2250	Gal.	.50
Oil, kerosene, in drums	Gal.	.11
Oil, marine engine	Gal.	.54
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc oxide, dry	Lb.	.10
Paint, zinc oxide, in oil	Lb.	.13
Grease, gear, chain and wire rope, lubricating	Lb.	.05
Grease, yellow, cup, No. 3	Lb.	.08
Grease, yellow, cup, No. 5	Lb.	.09
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.15
Waste, cotton, white	Lb.	.16

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2	$8.00	$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds	11.00	14.00

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., June 19, 1929. No. 46.

Canal Traffic During the First Fifteen Days of June.

During the first 15 days of June, 249 commercial vessels and 6 small launches transited the Canal. Tolls on the commercial vessels aggregated $1,055,913.22, and on the launches $26.85, or a total tolls collection of $1,055,940.07.

The daily average of transits of commercial vessels was 16.6 and the average tolls collection $70,394.21, as compared with an average of 16.73 transits and $72,396.46 in tolls for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was $4,240.62, as compared with $4,326.48 for the first 15 days of May. With respect to the number of transits, commercial traffic for the first 15 days of June was the lightest since the first half period of September, 1928, when 232 ships passed through, while the tolls collected were the smallest since October, 1928, when $1,031,136.02 was collected for the first 15 days of that month.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 11½ months of the current fiscal year, with the daily averages of transits and tolls:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
January	603	2,502,815.12	19.45	80,735.97
February	522	2,211,961.20	18.64	78,998.62
March	536	2,343,865.55	17.29	75,608.57
April	540	2,281,087.27	18.00	76,036.24
May	524	2,296,546.57	16.90	74,082.15
June (first 15 days)	249	1,055,913.22	16.60	70,394.21
Totals, first 11½ months of fiscal year, 1929	6,159	26,055,484.16	17.60	74,444.24
Totals, first 11½ months of fiscal year, 1928	6,226	25,974,572.91	17.73	74,001.63
Totals, first 11½ months of fiscal year, 1927	5,259	23,296,679.19	15.02	66,561.94

As compared with the first 11½ months of the fiscal year 1928, the corresponding period this year has had 67 fewer transits, while the tolls collected during the first 11½ months of this year are higher by almost $81,000 than the revenue collected from commercial traffic in the first 11½ months of the fiscal year 1928.

Ships' Chandlery Supplies.

Panama Canal Storehouses carry a complete line of ships' chandlery supplies, available for sale to ships at C. I. F. cost, plus 25 per cent surcharge which covers local freight, handling, and other costs.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Ferncliffe [16]	10	00.20	10	7.31	10	16.10	10	16.10	Norwegian	Fern Line	382 7	53 4	25.1	Bangkok, Siam	Habana, Cuba	Rice	7,450	6,112	4,284
Pacific Fir	10	3.20	10	8.33	10	18.25	10	18.25	American	Dimon S. S. Corp.	410 5	54 0	24.5	Seattle, Wash	New York, N. Y.	Lumber	8,085	6,624	4,883
Martha [16]	2	14.20	10	9.15	10	16.47			Norwegian	Chr. Hannevig, Jr	183.2	30.0	11.0	Buenaventura, Col.	Cristobal, C. Z.	Ballast		780	504
Commercial Traveler	10	5.30	10	10.14	10	19.10	10	21.34	American	Moore & McCormack	380 3	52 3	24.1	Valparaiso, Chile	Charleston, S. C.	Nitrates	7,400	5,657	4,253
Henry D. Whiton	10	8.00	10	11.06	10	20.40	10	20.40	American	Union Sulphur Co	356.0	51.6	23 6	Astoria, Wash	Philadelphia, Pa.	Lumber	4,980	5,367	2,925
Rio Dorado	10	20.25	10	21.59	11	9.20	11	12.45	British	Thompson S. S. Co	398 5	55.2	24.0	Portland, Oreg	Cobh, Ireland	Wheat	7,950	6,189	4,509
Gen. G. W. Getty [17]			10	7.20	10				American	U. S. Army	98.0	22.0		Balboa, C. Z	Cristobal, C. Z				
Buccaneer [18]			10	7.48	10				American	Lieut. H. C. Downey.				Balboa, C. Z	Cristobal, C. Z			2	2
Dorothy Luckenbach	11	1.00	11	3.01	11	10.15	11	10.15	American	Luckenbach Line	448 9	60 2	28.6	Portland, Oreg	Boston, Mass	Lumber, general	9,500	9,294	6,861
Inkum	11	5.20	11	6.06	11	13.55	11	18.23	British	J. H. Welsford & Co	400 0	52 0	24 0	Noumea, New Cal.	New York, N. Y.	Chrome ore	6,500	6,067	4,449
Sliedrecht [7 16]	11	5.30	11	6.40	11	14.00	11	14 00	Dutch	Phs. Van Ommersen	370.0	52 0	24.0	Los Angeles, Calif	Le Havre, France.	Gasoline	5,984	4,878	3,132
California	10	11.30	11	8.10	11	15.20	11	16 10	American	Panama-Pacific Line	574.4	80 3	28 0	San Francisco, Cal.	New York, N. Y.	General	5,070	24,504	17,565
Magellan	11	6.00	11	9.16	11	17.55	11	19 30	British	Pacific Steam Nav. Co	461 6	59 3	26 0	Talcahuano, Chile	Liverpool, England	General	9,118	8,817	6,063
Kansan	11	8.30	11	10 18	11	19.10	11	19.10	American	Amer.-Hawaiian Line	404.6	53 9	24.0	Portland, Oreg	Boston, Mass	General	5,768	6,779	4,921
Marsodak	11	8.00	11	10.30	11	19.50	11	24.00	American	Charles Nelson & Co	324.0	46.2	24.0	Pt. Towns'd, Wash.	New York, N. Y.	Lumber, copper	4,300	3,984	2,628
Mundelta	11	11.00	11	11.58	11	21 23	11	21 23	American	Munson S. S. Line	370.0	53 2	25.4	Portland, Oreg	Baltimore, Md	Lumber, general	6,000	5,668	4,297
Point Fermin	11	15.00	11	16.06	11	22.40	11	22 40	American	Swayne & Hoyt	324 0	46 2	21.0	Portland, Oreg	New Orleans, La	General	2,550	3,984	2,617
West Montop	11	22.10	11	23 40	12	8 40	12	8 40	American	Quaker Line	410 0	54 4	24 3	Aberdeen, Wash.	New York, N. Y.	([19])	6,946	6,484	4,675
Moerdijk	11	23.50	12	00.55	12	9.25	12	15.48	Dutch	Holland-American Line	487.0	61.0	25 6	Vancouver, B. C.	Rotterdam, Holland	General	9,351	9,165	7,056
Franklin K. Lane [1]	11	16.45	12	6.09	12	13 10	12	13 10	American	Pan-Amer. Pet. & Tr. Co.	435.0	56 2	26 0	Los Angeles, Calif	Baltimore, Md	Gasoline	9,700	7,405	5,131
Cleveland			12	6.37	12	14.40			American	U. S. Navy	292 0	44 0	17.5	Balboa, C. Z	Cristobal, C. Z				
Golden Sea	11	15.30	12	7.25	12	15 05	12	15 05	British	Canadian Transp. Co	387 6	52.0	23 6	Vancouver, B. C.	Boston, Mass	Lumber	5,400	5,434	4,011
Sunoil [1 16]	12	8.40	12	9.33	12	17 55	12	17 55	American	Sun Oil Co	480 6	66 0	28 6	Los Angeles, Calif	Marcus Hook, Pa.	Gasoline	13,605	9,610	6,396
Stella	10	1.05	12	9.42	12	18.50			Norwegian	Panama Mail S. S. Co.	195 1	32.9	11.0	Puntarenas, C. R.	Cristobal, C. Z	Ballast		985	606
Nosa Chief	12	9.20	12	10.11	12	19.05	12	21 20	American	N. O. & S. A. S. S. Co	299 4	45 0	22 3	Iquique, Chile	New Orleans, La	Beans, nitrates	3,670	3,256	2,010
Fordefjord [16]	12	10 00	12	10.50	12	19 05	12	19.05	Norwegian	Isbrandtsen Moller Co	378.8	50 2	26 0	Manila, P. I	East coast, U. S. A.	Sugar	7,500	5,572	4,134
S. C. T. Dodd [1]	12	12.15	12	12.57	12	20.23	12	20.23	American	Standard Oil Co	425.0	57.2	28 0	Los Angeles, Calif	Baltimore, Md	Gasoline	9,300	7,481	4,775
Levant Arrow [1]	12	12 20	12	13.54	12	22.10	12	22 10	American	Standard Oil Co. of Cal.	468 3	62 7	28 0	Los Angeles, Calif	Providence, R. I.	Gasoline	11,041	9,841	6,985
A. L. Kent	12	15.45	12	21 28	13	8 50	13	8 50	American	Isthmian S. S. Co.	394 1	55.1	26 6	Englewood, B. C.	Philadelphia, Pa.	Lumber	7,500	7,047	5,132
El Salvador	12	16.00	13	4.13	13	11.15	14	11 12	American	Panama Mail S. S. Co.	360 9	51.6	20 4	San Francisco, Cal.	New York, N. Y.	General	1,880	5,718	4,023
Atlanta City	13	1.45	13	5.00	13	13.32	13	17.17	American	Isthmian S. S. Co.	424 2	56.2	26.1	Port Allen, T. H.	New York, N. Y.	Sugar	8,929	7,611	5,450
Oran	13	11.30	13	12.19	13	19 40	13	19.40	American	Oriental Navigation Co.	410 5	54 2	24.6	Aberdeen, Wash	Wilmington, Del.	([20])	7,000	6,755	4,886
Manizales	13	13 10	13	14.28	13	21.05	16	13 20	German	North German Lloyd	216 5	32.9	15 6	Guayaquil, Ec'd'r	Cristobal, C. Z.	General	737	1,132	741
Cauca [16]	13	20 05	13	22 34	14	9 20			Colombian	Cia. Nacional de Nav.	107 0	23 0	11 0	Buenaventura, Col.	Cristobal, C. Z	Coffee, general	284	238	163

[1] Tanker. [16] Motor ship. [17] Tug. [18] Launch. [19] Lumber and paper pulp. [20] Paper pulp and lumber.

La Perla	13	21	10	13	22.19	14	9.12	15	14.10	American	United Fruit Co	325.2	48.1	18.6	San Francisco, Cal.	Port Limon, C. R.	General	610	4,033	2,261
Buenos Aires [16]	13	22.15		14	6.52	14	14.15	14	15.40	Swedish	Johnson Line	440.0	56 0	27.0	Honolulu, T. H.	Stockholm, Sweden	General	7,115	7,591	5,661
Jamaica	14	00.20		14	7 07	14	15 45			British	Pacific Steam Nav. Co	220.0	34 0	14.0	Champerico, Guat	Cristobal, C. Z	[41]	892	1,187	622
Swan [21]				14	7.07	14	18.23			American	U. S. Navy	188.0	32 6		Balboa, C. Z	Cristobal C, Z				
Oropesa	14	5.10		14	7 50	14	17.15	15	1.40	British	Pacific Steam Nav. Co.	530.0	66.0	28 6	Talcahuano, Chile	Liverpool, England	[25]	7,971	14,827	10,630
Winterhude [22]	14	11.20		14	14.53	15	16.57	16	7.45	Finnish	Gustaf Erikson	285.5	40.1	22.3	Salaverry, Peru	London, England	Guano	3,200	2,033	1,835
Oregonian	14	13.45		14	15.02	14	21.40	14	21.40	American	Amer.-Hawaiian Line	404.6	53.9	26.0	Seattle, Wash	Boston, Mass	General	5,200	6,754	4,800
Texas [23]	11	7 00		15	6.19	15	14 45	15	14.45	American	U. S. Navy	565.0	92 0		Los Angeles, Calif	Pt. Au Prince, Haiti				
Atlantic	14	18.40		15	6.58	15	17.47	15	17.47	American	Argonaut S. S. Line	410 5	54.3	25.0	Tacoma, Wash	Baltimore, Md	Lumber, ore	6,764	6,567	4,917
Baarn	14	14.25		15	7 21	15	16.50	16	1.30	Dutch	Royal Neth. S. S. Co	400 6	58.3	25.9	Corral, Chile	Hamburg, Germany	[20]	8,202	7,918	6,101
Sutherland	15	1 25		15	7 53	15	18.57	15	18.57	American	Charles Nelson & Co	380 0	53.2	24.0	South Bend, Wash.	Baltimore, Md	General, lumber	5,947	5,654	4,123
Axel Johnson [17]	15	2 00		15	8.04	15	18 49	16	21.10	Swedish	Johnson Line	409 0	52 6	23.5	Vancouver, B. C.	Stockholm, Sweden	[27]	5,074	6,642	4,860
Penelope [1] [16]	15	4.50		15	8.48	15	19 45	15	19.45	Danzig	Standard Oil Co	489.0	63 0	26.9	Talara, Peru	Hamburg, Germany	Gasoline	11,375	9,302	6,127
Theofano	15	8.15		15	9.07	15	20 35	15	23 15	Greek	S. Livanos	405.5	54 2	24 0	Tocopilla, Chile	Azores [28]	Nitrates	8,300		
Woodfield	15	9.30		15	10 07	15	21 40	16	09.50	British	Woods, Taylor & Brown	400.0	53.0	24.0	Vancouver, B. C.	New York, N. Y	Lumber	6,197	5,798	4,118
Sunugentco	15	10 50		15	11.25	15	21 14	15	21.12	American	Transmarine Lines	324.0	46 2	23 0	Aberdeen, Wash.	Port Newark, N. J.	Lumber	5,059	3,984	2,628
Queen Maud	15	11 10		15	12.19	15	22.03	15	22.03	British	Thomas Dunlop & Sons	400 2	52 3	25 0	Tocopilla, Chile	Savannah, Ga	Nitrates	7,500	5,748	3,954

[1] Tanker. [21] Minesweeper. [22] Sailing ship. [23] Battleship. [24] Coffee, hides, and general. [25] Copper, beans, and cotton. [26] Nitrates, copper, and general. [27] Wheat, fruit, and general. [28] For orders.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
June 9	Ulua	United Fruit Co	Port Limon, C. R.
June 10	Mercian	Leyland S. S. Line	Liverpool via wayports.
June 10	Toloa	United Fruit Co	New York via Habana.
June 10	No. 9664 [29]	Pan-American Airways	Managua via wayports.
June 10	No. 8020 [29]	Pan-American Airways	Guayaquil via wayports.
June 11	Mary V [30]	H. C. Robinson	San Andres.
June 11	Cryssen	Royal Netherlands S. S. Co	Amsterdam via wayports.
June 11	Pellerin de la Touche	French Line	Havre via wayports.
June 11	No. 9688 [29]	Pan-American Airways	Managua via wayports.
June 11	Anachucuna [31]	United Fruit Co	Colon, R. P.
June 12	Orinoco	Hamburg-American Line	Hamburg via wayports.
June 12	Swiftarrow	C. D. Mallory & Co	Curacao, D. W. I.
June 12	Santa Marta	United Fruit Co	New York via Kingston.
June 12	Cundinamarca [29]	Scadta Airplane Co	Barranquilla, Colombia.
June 13	Inapaquina [31]	United Fruit Co	New Orleans, La.
June 14	Amapala	Standard Fruit & S. S. Co	New Orleans via Habana.
June 14	Cryssen	Royal Netherlands S. S. Co	Port Limon, C. sta Rica.
June 14	Saramacca	United Fruit Co	Cartegena, Colombia.
June 15	Mayari	United Fruit Co	Boston via wayports.
June 15	Atlantian	Leyland S. S. Line	Tarafa, Cuba.
June 15	Orinoco	Hamburg-American Line	Port Limon, C sta Rica.
June 15	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
June 14	Anachucuna [31]	United Fruit Co	Colon, R. P.
June 14	Annetta I. [31]	A. Tagarapulos	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
June 9	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
June 9	Ulua	United Fruit Co	New York via Habana.
June 9	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
June 10	Maravi	United Fruit Co	New York via Kingston.
June 10	Parismina	United Fruit Co	New Orleans via wayports.
June 11	No. 9685 [29]	Pan-American Airways	Managua via David.
June 11	Mercian	Leyland S. S. Line	Port Limon and Colombia.
June 11	Cryssen	Royal Netherlands S. S. Co	Port Limon, Costa Rica.
June 11	Anachucuna [31]	United Fruit Co	Colon, R. P.
June 12	Toloa	United Fruit Co	Port Limon, Costa Rica.
June 12	Orinoco	Hamburg-American Line	Port Limon, Costa Rica.
June 13	Inapaquina [31]	United Fruit Co	Colon, R. P.
June 13	Cundinamarca [29]	Scadta Airplane Co	Barranquilla, Colombia.
June 13	No. 9664 [29]	Pan-American Airways	Managua via David.
June 13	Santa Marta	United Fruit Co	New York via wayports.
June 13	Swiftarrow	C. D. Mallory & Co	Curacao, D. W. I.
June 13	Mary V [30]	H. C. Robinson	Cartagena, Colombia.
June 13	Pellerin de La Touche	French Line	Havre via wayports.
June 14	Coppename	United Fruit Co	Puerto Colombia.
June 14	No. 8020 [29]	Pan-American Airways	Guayaquil, Ecuador.
June 14	Saramacca	United Fruit Co	New Orleans, La.
June 14	Anachucuna [31]	United Fruit Co	Colon, R. P.
June 14	Annetta I. [31]	A. Tagarapulos	Colon, R. P.
June 15	Inapaquina [31]	United Fruit Co	Colon, R. P.

[29] Air mail carrier. [30] Motor schooner. [31] Motor boat. * Other than ships passing through the Canal.

(Continued on page 658, column 2.)

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 98 per cent of all cargo moving from the Pacific to the Atlantic during the month of May, 1929. Commodities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing the differences:

Commodity.	May, 1929.	May, 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Barley	11,599	13,759	−2,160
Borax	7,585	10,491	−2,906
Canned goods (fish, fruit, vegetables, etc.)	44,911	44,370	+541
Coffee	12,072	15,238	−3,166
Cold storage (food products) [1]	27,538	24,410	+3,128
Copra	9,138	11,045	−1,907
Flour	6,428	12,967	−6,539
Fruit, dried	11,057	12,297	−1,240
Fruit, fresh	22,641	6,624	+16,017
Lumber	334,538	394,467	−59,929
Metals, various	52,656	60,233	−7,577
Nitrates	140,425	157,727	−17,302
Oats	8,250	15,774	−7,524
Oils, mineral	432,368	356,243	+76,125
Ores (principally iron)	127,905	157,332	−29,427
Rice	13,108	1,278	+11,830
Sugar	75,298	32,921	+42,377
Wheat	129,597	310,708	−181,111
Wool	20,001	18,632	+1,369

[1] Does not include fresh fruits.

The above 19 commodity groups comprise 92.6 per cent of the cargo from the Pacific to the Atlantic during May, 1929. As will be noted the greater part of these items showed decreases under May of last year, wheat alone falling off 181,111 tons. Mineral oils and sugar registered the greatest increases.

(**Continued on page 656.**)

Regulating Level of Gatun Lake.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *June 18, 1929.*

To all concerned.—1. The following schedule for maintaining Gatun Lake during the 1929 rainy season will be adhered to as closely as conditions permit.

2. The Lake will be allowed to fill to elevation 85.50 before any water is wasted over the spillway. However, spilling for sanitary purposes or for exhibition will be permitted upon approval of the Chief of Surveys. The Lake will be held between elevations 85.50 and 86.00 until October 1; filled to elevation 86.50 in October; and to elevation 87.00 after November 1, to be varied slightly according to water supply conditions. After spillage is begun, a variation of 0.50' from above elevations will be allowed to lessen the number of gate operations.

J. L. SCHLEY,
Acting Governor.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *June 14, 1929.*

No. 549.

The following was received by the Hydrographic Office through the Marine Superintendent, The Panama Canal:

U. S. S. *Galveston*, June 14, construction work beacons entering range, Corinto Harbor, completed, lights burning. Front range, fixed white; rear range, occulting white; period 10 seconds, flash 2 seconds, eclipse 8 seconds.

(No signature.)

J. L. SCHLEY,
Acting Governor

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending June 15, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Witell	North German Lloyd	June 9	June 9	256	43
Tongking	Danish East Asiatic Co	June 9	June 9	158	(2)
Ulua	United Fruit Co	June 9	June 9	17	85
Cristobal	Panama R. R. S. S. Line		June 9		1,161
Cerigo	Hamburg-American Line		June 9		208
Wanks	Standard Fruit & S. S. Co		June 9		7
Ludwigshafen	North German Lloyd	June 9	June 10	(1)	70
Wiegand	North German Lloyd	June 9	June 10	77	505
Parismina	United Fruit Co		June 10		43
Maravi	United Fruit Co		June 10		198
Venezuela	Panama Mail S. S. Co	June 9	June 11	400	104
Aconcagua	Chilean Line	June 10	June 10	8	(2)
M. F. Elliott	Standard Oil Co	June 10	June 10	783	(2)
Mercian	Leyland S. S. Line	June 10	June 11	658	28
Toloa	United Fruit Co	June 10	June 12	638	50½
Crijnssen	Royal Netherlands S. S. Co	June 11	June 11	32½	(2)
Grootendijk	Holland-American Line	June 11	June 12	369	43
Pellerin de Latouche	French Line	June 11	June 13	369	583
Moerdijk	Holland-American Line	June 12	June 12	(1)	275
Orinoco	Hamburg-American Line	June 12	June 12	221	(2)
Swiftarrow	C. D. Mallory & Co	June 12	June 13	11,650	(2)
Santa Marta	United Fruit Co	June 12	June 13	759	613
City of Panama	Panama Mail S. S. Co		June 13		2,572
El Salvador	Panama Mail S. S. Co	June 13	June 14	603	251
Coppename	United Fruit Co	June 13	June 14	752	328
Bennekom	Royal Netherlands S. S. Co	June 13	June 15	189	268
Manizales	North German Lloyd	June 13		737	
Saramacca	United Fruit Co	June 14	June 14	2	363
Oropesa	Pacific Steam Navigation Co	June 14	June 15	31	17
Jamaica	Pacific Steam Navagation Co	June 14		892½	
Lochkatrine	Pacific Steam Navagation Co	June 14	June 15	7	381½
Crijnssen	Royal Netherlands S. S. Co	June 14	June 15	7	209
Amapala	Standard Fruit & S. S. Co	June 14	June 15	307	510
Cauca	National Navigation Co	June 14		284	
La Perla	United Fruit Co	June 14	June 15	1,204	3
Heredia	United Fruit Co	June 15		850	
Camden	United Fruit Co	June 15		5,340	
Baarn	Royal Netherlands S. S. Co	June 15	June 15	160	(2)
Wanks	Standard Fruit & S. S. Co	June 15		134	
Mayari	United Fruit Co	June 15	June 15	273	1,061
Linda S.	R. Feuillebois	June 15	June 15	(1)	40
Portland	Hamburg-American Line	June 15		12	
Santa Maria	Grace Line	June 13	June 13	(1)	39

[1] No cargo discharged. [2] No cargo laded.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective June 19, 1929:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.22
Brass, sheet, average	Lb.	.35
Bronze, Tobin, average	Lb.	.21
Gasoline, motor grade	Gal.	.14½
Metal, yellow	Lb.	.24
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.17
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals.	1.50
Oil, ammonia, cylinder	Gal.	.28
Oil, burning, Colza	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135	Gal.	.43
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250	Gal.	.58
Oil, engine, gas, extra heavy, in drums, Gulftriton No. 2250	Gal.	.50
Oil, kerosene, in drums	Gal.	.11
Oil, marine engine	Gal.	.54
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc oxide, dry	Lb.	.10
Paint, zinc oxide, in oil	Lb.	.13
Grease, gear, chain and wire rope, lubricating	Lb.	.05
Grease, yellow, cup, No. 3	Lb.	.08
Grease, yellow, cup, No. 5	Lb.	.09
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.15
Waste, cotton, white	Lb.	.16

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, May, 1929.—Continued from page 654.

(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America.[1]	Balboa, C. Z.[2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	Australia.	New Zealand.	Australasia.[1]	Total, Australasia.		
North America:																								
UNITED STATES—																								
North Atlantic ports	17,853	2,452	720	6,614	886	28,525	235,398	1,263	3,038	....	1,304	8,427	249,430	53,479	18,907	13,481	13,323	99,190	27,678	21,993	....	49,671	426,816	46.4
South Atlantic ports	....	....	....	....	....	....	4,209	....	....	....	....	....	4,209	1,590	85	150	360	2,185	....	....	....	....	6,394	0.7
Gulf ports	4,214	156	175	929	418	5,892	54,648	3,705	15	....	10,750	61	69,179	40,120	20,673	4,761	250	65,804	17,781	9,214	....	26,995	167,870	18.2
Totals, U. S.	22,067	2,608	895	7,543	1,304	34,417	294,255	4,968	3,053	....	12,054	8,488	322,818	95,189	39,665	18,392	13,933	167,179	45,459	31,207	....	76,666	601,080	65.3
Cristobal, C. Z.[2]	981	1,680	1,102	1,024	1,707	6,494	6,514	93	10,221	....	....	....	16,828	....	....	....	....	....	....	....	....	....	23,322	2.5
East coast of Canada	....	....	....	....	....	....	300	4,290	....	....	....	....	4,590	750	1,370	....	....	2,120	3,063	4,978	....	8,041	14,751	1.6
West Indies	364	....	....	240	....	604	3,179	11,212	....	....	....	....	14,391	3,100	14,732	....	....	17,832	....	....	....	....	32,827	3.6
East coast of Mexico and Central America	5,840	....	....	....	....	5,840	421	....	3,471	....	....	....	3,892	....	....	....	....	....	....	....	....	....	9,732	1.1
Totals, North America	29,252	4,288	1,997	8,807	3,011	47,355	304,669	20,563	16,745	....	12,054	8,488	362,519	99,039	55,767	18,392	13,933	187,131	48,522	36,185	....	84,707	681,712	74.1
Europe:																								
British Isles	19,378	85	75	3,220	7,389	30,147	1,514	3,625	5,500	....	....	....	10,639	....	....	....	....	....	....	48,381	....	48,381	89,167	9.7
Belgium	9,117	1,703	637	1,024	2,774	15,228	22,482	2,242	633	....	4	....	25,361	....	....	....	....	....	....	....	....	....	40,589	4.4
France	1,262	....	60	286	41	1,649	2,836	84	120	....	....	....	3,040	....	....	....	....	....	....	....	....	....	4,689	0.5
Germany	2,455	365	497	1,630	174	5,121	6,707	3,019	1,907	....	564	....	12,197	....	....	....	....	....	....	....	....	....	17,318	1.9
Holland	1,065	5	246	1,177	685	3,178	3,389	123	....	....	....	....	3,512	....	....	....	....	....	....	....	....	....	6,690	0.7
Italy	....	....	....	....	....	....	1,663	33	516	....	....	....	2,212	....	....	....	....	....	....	....	....	....	2,212	0.2
Norway and Sweden	4,207	....	226	1,627	....	6,060	16	....	396	....	1,770	....	2,182	....	....	....	....	....	6,992	....	....	6,992	15,234	1.7
Spain and Portugal	59	....	....	25	....	84	10	112	51	....	....	....	173	....	....	....	....	....	....	....	....	....	257	....
Europe[1]	15,815	353	573	1,892	15,614	34,247	11,267	2,761	167	....	557	....	14,752	....	....	....	....	....	....	....	....	....	48,999	5.3
Totals, Europe	53,358	2,511	2,314	10,881	26,650	95,714	49,884	11,999	9,290	....	2,895	....	74,068	....	....	....	....	....	....	....	....	55,373	225,155	24.4
East coast of South America	6	257	....	....	....	263	11,616	140	790	....	....	....	12,546	642	42	....	....	684	....	....	....	....	13,493	1.5
Grand totals	82,616	7,056	4,311	19,688	29,661	143,332	366,169	32,702	26,825	....	14,949	8,488	449,133	99,681	55,809	18,392	13,933	187,815	55,514	84,566	....	140,080	920,360	100.0
Per cent of total cargo:																								
May, 1929	9.0	0.8	0.5	2.1	3.2	15.6	39.8	3.6	2.9	....	1.6	0.9	48.8	10.8	6.1	2.0	1.5	20.4	6.0	9.2	....	15.2	100.0	.....
May, 1928	6.5	1.7	0.6	2.8	2.8	14.4	44.6	2.1	2.6	....	0.1	2.6	52.0	10.0	7.5	1.6	1.5	20.6	1.0	6.9	5.1	13.0	100.0	.....
M , 1927	3.6	1.3	0.1	0.9	8.1	14.0	44.9	4.6	1.7	0.3	0.1	0.6	52.2	7.6	2.3	1.7	5.1	16.7	7.6	6.4	3.1	17.1	100.0	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, May, 1929.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.															
	United States.																								
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	East coast of Central America.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.[1]	Total, Europe.	East coast of South America.	Egypt.	Africa.	Grand totals.	Per cent of total cargo.
South America:																									
Chile	140,791	62,600	13,824	217,215	.....	8,269	.....	67	225,551	19,037	5,068	....	7,045	4,887	2,856	2,152	1,177	.....	32,778	75,000	.....	.....	.....	300,551	18.6
Colombia	1,097	.....	.....	1,097	.....	.....	.....	3,378	4,475	.....	.....	....	9	.....	.....	.....	.....	.....	.....	9	.....	.....	.....	4,484	0.3
Ecuador	26,345	.....	.....	26,345	.....	.....	.....	2,026	28,371	42	.....	....	406	193	.....	550	.....	12	.....	1,203	.....	.....	.....	29,574	1.8
Peru	28,608	.....	.....	28,608	45,676	.....	.....	45	74,329	2,905	362	....	869	306	239	60	.....	.....	11,662	16,403	.....	.....	.....	90,732	5.6
West coast of South America[1]	3,028	.....	.....	3,028	.....	.....	.....	331	3,359	515	.....	....	.....	.....	.....	10	.....	.....	7,209	7,734	.....	.....	.....	11,093	0.7
Totals, S. Amer.	199,869	62,600	13,824	276,293	45,676	8,269	.....	5,847	336,085	22,499	5,430	....	8,329	5,386	3,095	2,772	1,177	12	51,649	100,349	.....	.....	.....	436,434	27.0
North America:																									
West coast of Canada	53,262	.....	862	54,124	12,894	.....	.....	235	67,253	55,589	3,306	....	5,167	10,432	9,377	141	1,000	38	39,137	124,187	458	.....	.....	191,898	11.9
W. coast, Cen. Amer.	451	.....	.....	451	.....	52	.....	6,246	6,749	.....	1	....	1,143	748	200	.....	.....	.....	.....	2,092	.....	.....	.....	8,841	0.5
West coast of U. S.	507,910	8,589	29,693	546,192	.....	18,220	2,207	4,538	571,157	121,109	3,876	86	14,871	12,708	10,088	1,772	715	6,500	51,958	223,683	4,484	7,400	24	806,748	50.0
Hawaii	3,310	.....	9,808	13,118	.....	.....	.....	.....	13,118	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13,118	0.8
Totals, N. America	564,933	8,589	40,363	613,885	12,894	18,272	2,207	11,019	658,277	176,698	7,183	86	21,181	23,888	19,665	1,913	1,715	6,538	91,095	349,962	4,942	7,400	24	1,020,605	63.2
Asia:																									
China	2,436	.....	.....	2,436	.....	.....	.....	575	3,011	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,011	0.2
Japan	4,152	.....	.....	4,152	.....	.....	.....	27	4,179	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,179	0.3
Philippines	53,027	.....	23,152	76,179	.....	.....	.....	.....	76,179	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	76,179	4.6
Far East[1]	2,319	.....	.....	2,319	.....	7,084	.....	.....	9,403	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,403	0.6
Totals, Asia	61,934	.....	23,152	85,086	.....	7,084	.....	602	92,772	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	92,772	5.7
Australasia:																									
Australia	11,372	.....	.....	11,372	1,324	.....	.....	45	12,741	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,741	0.8
New Zealand	5,372	.....	.....	5,372	229	.....	.....	.....	5,601	46,832	.....	....	.....	.....	.....	.....	.....	.....	.....	46,832	.....	.....	.....	52,433	3.2
Australasia[1]	1,494	.....	.....	1,494	.....	.....	.....	.....	1,494	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,494	0.1
Totals, Australasia	18,238	.....	.....	18,238	1,553	.....	.....	45	19,836	46,832	.....	....	.....	.....	.....	.....	.....	.....	.....	46,832	.....	.....	.....	66,668	4.1
Grand totals	844,974	71,189	77,339	993,502	60,123	33,625	2,207	17,513	1,106,970	246,029	12,613	86	29,510	29,274	22,760	4,685	2,892	6,550	142,744	497,143	4,942	7,400	24	1,616,479	100.0
Per cent of total cargo:																									
May, 1929	52.3	4.4	4.8	61.5	3.7	2.1	0.1	1.1	68.5	15.2	0.8	....	1.8	1.8	1.4	0.3	0.2	0.4	8.8	30.7	0.3	0.5	....	100.0	.....
May, 1928	48.3	3.5	2.6	54.4	3.0	1.8	0.6	1.6	61.4	20.9	1.3	0.2	1.6	3.4	2.8	1.1	0.2	0.8	6.1	38.4	0.2	.....	.....	100.0	.....
May, 1927	56.2	1.1	1.3	58.6	3.8	2.5	0.1	4.0	69.0	13.4	1.0	0.2	1.2	3.2	1.2	0.1	1.1	0.6	7.3	29.3	1.2	0.5	....	100.0	.....

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Sale of Tug Boat.

The Panama Canal offers for sale to the highest bidder the tug boat *Gatun*, a seagoing, single screw, steel hull, steam, oil-burning vessel, length 101 feet; beam 22 feet; load line draft 12 feet 6 inches. Sealed bids will be received in the offices of the General Purchasing Officer, The Panama Canal, Washington, D. C., and the Chief Quartermaster, The Panama Canal, Balboa Heights, Canal Zone, not later than 10.30 o'clock, a. m. August 1, 1929. Forms of proposal, Circular No. 1969, with full particulars, may be had upon application to the above-mentioned offices.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessel furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Transit and Harbor Regulations of The Panama Canal," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.

The Hydrographic Office at Cristobal maintain at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometric comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

MOVEMENTS OF OCEAN VESSELS.—Continued from page 651.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

Date.	Vessel.	Line.	From—
June 15	Heredia	United Fruit Co	New Orleans via Habana
June 15	Camden	United Fruit Co	Curacoa, D. W. I.
June 15	No. 9664 [32]	Pan-American Airways	Managua via David.
June 15	No. 9685 [32]	Pan-American Airways	Managua via David.
June 15	No. 8044 [32]	Pan-American Airways	Miami via wayports.
June 15	No. 9776 [32]	Pan-American Airways	Miami via wayports.
June 15	Linda S. [33]	A. L. Surgeon	Colon, R. P.
June 15	Inapaquina [34]	United Fruit Co	Colon, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
June 15	No. 9688 [32]	Pan-American Airways	Managua via David.
June 15	Amapala	Standard Fruit & S. S. Co	New Orleans via wayp'ts.
June 15	Crynsen	Royal Netherlands S. S. Co	Amsterdam via wayports.
June 15	Linda S. [33]	A. L. Surgeon	Bluefields, Nicaragua.

[32] Airmail carrier. [33] Motor schooner. [34] Motor boat.

PORT OF BALBOA.

* ARRIVALS.

Date.	Vessel.	Line.	From—
June 13	Dos Hermanos [35]	A. Valdez	Bayano River, R. P.
June 13	A. B. De Obarrio [35]	Pacific Fruit Co	Bayano River, R. P.
June 13	Sambu [35]	Hans Elliot	Bayano River, R. P.
June 13	San Luis [35]	Chiriqui Land Co	Pto. Armuelles, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
June 13	Dos Hermanos [35]	A. Valdez	Panama Bay, R. P.
June 13	A. B. De Obarrio [35]	Pacific Fruit Co	Panama Bay, R. P.
June 13	Sambu [35]	Hans Elliot	Panama Bay, R. P.
June 13	San Luis [35]	Chiriqui Land Co	Pto. Armuelles, R. P.

[35] Motor schooner.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., June 26, 1929. No. 47.

Tourists to Visit Canal in 1929-30 Season.

Reservations of facilities, such as special trains, water transportation through Gaillard Cut, and hotel accommodations, have been made for about 35 large parties of tourists scheduled to visit the Canal and Panama during the dry season of 1929-30. These are in addition to the cruises of the United Fruit Company, which will arrive twice weekly during the height of the season. On the basis of the size of the cruise vessels scheduled to bring parties there should be about 12,000 to 15,000 tourists on them, and the United Fruit Company is expected to bring between 1,000 and 2,000 more. In these figures there is no consideration of ordinary passenger arrivals on vessels engaged in regular services through the Canal or to its terminal ports.

Indications are that next season's tourist business will be the largest since the construction of the Canal. Canal visitors in 1912 numbered over 20,000 and those in 1913 over 25,000.

"Pennsylvania" to be Launched Next Month.

Recent reports indicate that the steamship *Pennsylvania* of the Panama-Pacific Line, which was laid down late last August, will be ready for launching in July, and ready for service in October or November of this year.

The *Pennsylvania* is the third of the trio of turbo-electric liners built by the International Mercantile Marine for operation between New York and San Diego, Los Angeles, and San Francisco, via the Panama Canal. The *Virginia* and the *California* are the sister ships of the *Pennsylvania*.

The fact that the *California* and the *Virginia*, now in operation, are the first passenger ships to employ electric propulsion has made their operation of unusual interest in the marine field.

Airplane Service Between the Canal Zone and David, R. P.

The Pan American Airways, Inc., began an aerial passenger and express service between Cristobal (France Field) and David, R. P., on June 3, 1929. The first plane left David on June 3 with four passengers for Panama City and one for Cristobal; the first flight in the other direction was made on June 4 with one passenger from Cristobal and one from Panama City. Since that time the service has been maintained with three flights in each direction weekly. Planes leave Cristobal on Tuesdays, Thursdays and Saturdays at 7.00 a. m., and Panama City at 7.30 a. m. From David, planes leave on Mondays, Thursdays and Saturdays at 12.30 p. m. The time between the two terminals is approximately two and one-half hours. Stops are made at Panama City for the convenience of passengers. The fare between Cristobal and David is $50.00 one way and $80.00 for the round trip. Thirty pounds of baggage are carried free for each passenger and excess baggage is carried for 25 cents per pound.

CANAL WORK IN MAY, 1929.

The following is the report of the Acting Governor to the Secretary of War, of Canal work in the month of May, 1929.

BALBOA HEIGHTS, C. Z., *June 17, 1929.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report covering operations of The Panama Canal during the month of May, 1929.

NUMBER OF TRANSITS.

During the month 524 commercial vessels passed through the Canal. In addition to these, 18 nonseagoing launches measuring under 20 tons, and 40 vessels belonging to the United States Government transited the Canal. There was also one transit of a Panaman Government vessel and two transits of a vessel solely for repairs, on which no tolls were collected, making a total of 585 transits for the month, or a daily average of 18.87.

Tolls on the 524 commercial vessels amounted to $2,296,546.57, and on the launches to $179.58, a total of $2,296,726.15, or a daily average on all traffic of $74,087.94.

Total commercial traffic for the past month was lower by 16 transits than the traffic for April, 1929, although the tolls collected during the past month were slightly higher than the revenue collected from commercial traffic in April, 1929. As compared with the corresponding month last year, commercial traffic for May, 1929, was greater by 16 transits and over $175,000.00 in tolls.

A review of the commercial traffic for the first 11 months of the current fiscal year reveals that while transits are 65 fewer than for the corresponding period in the fiscal year 1928, the record year in Canal traffic, net tonnage of vessels, Panama Canal measurement, tons of cargo carried, and tolls collected are slightly higher than these items for the first 11 months of the fiscal year 1928.

The total number of craft of all kinds transiting the Canal during the month of May, 1929, as compared with the same month in 1928 and 1927, are shown in the following tabulation:

	May, 1929.	May, 1928.	May, 1927.
Commercial vessels	524	508	471
Launches (under 20 tons measurement)	18	12	20
Noncommercial vessels:			
United States Government	40	35	43
Panaman Government	1	1	2
Colombian Government		2	
Vessels transiting for repairs	2	8	2
Totals	585	566	538

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Totals.
Gatun	5	5	10
Pedro Miguel	30	34	64
Miraflores	27	24	51
Totals	62	63	125

COMMERCIAL TRAFFIC. [1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1929, to the end of May, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927–8	1928–9	1927–8.	1928–9.	1927–8.	1928–9.	1927–8.	1928–9.
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	$2,215,515.99	$2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
September	540	487	2,532,942	2,295,053	2,397,753	2,313,011	2,294,432.34	2,111,230.56
October	567	557	2,585,752	2,515,380	2,717,646	2,582,477	2,380,115.97	2,274,945.30
November	559	527	2,591,717	2,468,297	2,488,882	2,501,630	2,369,267.99	2,225,937.48
December	589	579	2,616,728	2,698,140	2,573,828	2,714,987	2,398,459.75	2,443,029.39
January	540	603	2,422,770	2,771,280	2,372,061	2,858,835	2,212,752.50	2,502,815.12
February	547	522	2,460,111	2,428,530	2,660,425	2,550,498	2,253,755.37	2,211,961.20
March	542	536	2,441,077	2,567,961	2,428,662	2,743,768	2,223,370.57	2,343,865.55
April	531	540	2,384,491	2,488,176	2,473,884	2,719,668	2,187,607.82	2,281,087.27
May	508	524	2,274,612	2,496,905	2,497,588	2,536,839	2,118,969.83	2,296,546.57
Totals	5,975	5,910	27,230,769	27,485,363	27,491,144	28,239,004	24,928,288.68	24,999,570.94

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panaman, and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

The following is a summary of the commercial traffic for May, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly averages for the calendar year 1928:

	May, 1929.	May, 1928.	May, 1927.	Average per month for calendar year 1928.
Number of vessels	524	508	471	528
Panama Canal net tonnage	2,496,905	2,274,612	2,248,892	2,411,953
United States net tonnage	1,909,014	1,771,894	1,758,021	1,851,471
Registered gross tonnage	3,150,598	2,883,204	2,876,402	3,029,975
Registered net tonnage	1,921,410	1,767,553	1,766,716	1,855,554
Tolls	$2,296,546.57	$2,118,969.83	$2,066,070.73	$2,197,996.86
Tons of cargo carried	2,536,839	2,497,588	2,379,713	2,450,132

The average daily number of transits, tonnage, tolls, and cargo, are shown in the following statement, in comparative form, commercial transits only:

	Average per day.			Average per day for calendar year 1928.
	May, 1929.	May, 1928.	May, 1927.	
Number of transits	16.90	16.38	15.19	17.31
Panama Canal net tonnage	80,545	73,374	72,545	79,080
Tolls	$74,082.15	$68,353.86	[1]$66,629.90	$72,065.47
Tons of cargo carried	81,833	80,567	76,765	80,332

[1] Does not include $543.75 collected on supplemental bills.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during May, 1929, as compared with May, 1928, and 1927, are shown in the following tabulation:

	Average per vessel.		
	May, 1929.	May, 1928.	May, 1927.
Panama Canal net tonnage	4,765	4,477	4,774
United States net tonnage	3,643	3,488	3,732
Registered gross tonnage	6,012	5,675	6,107
Registered net tonnage	3,667	3,479	3,751
Tolls	$4,382.72	$4,171.20	[1]$4,385.41
Tons of cargo (including vessels in ballast)	4,841	4,916	5,052
Tons of cargo (laden vessels only)	5,726	5,728	6,246

[1] Does not include $543.75 collected on supplemental bills.

TOLLS.

At present tolls are collected at rates of $1.20 per net ton for laden vessels and $0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provisions that tolls shall not exceed $1.25 per ton nor be less than $0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged $0.943 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.72 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of May, 1929, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1.00 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian	$5,652.50	$6,211.00	$558.50	
British	627,646.35	662,418.00	34,771.65	
Chilean	[1]24,535.99	[1]25,119.20	583.21	
Colombian	3,063.65	2,606.00		$457.65
Danish	15,221.24	15,022.20		199.04
Danzig	6,508.75	5,297.00		1,211.75
Dutch	58,571.29	61,357.20	2,785.91	
French	[2]44,072.55	[2]43,283.00		789.55
German	124,453.47	141,444.60	16,991.13	
Greek	2,792.50	3,433.00	640.50	
Italian	32,027.50	35,341.00	3,313.50	
Japanese	76,941.85	73,801.00		3,140.85
Norwegian	114,441.35	125,598.00	11,156.65	
Panaman	8,476.25	10,106.00	1,629.75	
Peruvian	1,236.25	2,405.00	1,168.75	
Swedish	[2] 28,575.24	31,005.20	2,429.96	
United States	1,109,819.84	1,119,401.60	9,581.76	
Yugoslav	12,510.00	12,781.00	271.00	
Totals	$2,296,546.57	$2,376,630.00	$85,882.27	$5,798.84
Net increase for all traffic			80,083.43	

[1] Includes $14,892.00 collected for naval vessel. [2] Includes $5,875.00 collected for naval vessel.

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$8,646.51
United States foreign trade	3,590.65
United States—Canal Zone trade	[1]2,655.40
Net increase	$9,581.76

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement, of vessels transiting the Panama Canal in May, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian		1.58	1.58
British	.89	1.27	1.10
Chilean	.58	1.05	.82
Colombian	.89	1.10	1.00
Danish	1.13	1.70	1.44
Danzig		2.13	2.13
Dutch	.61	1.65	1.09
French	.47	1.56	.82
German	.95	1.37	1.18
Greek	1.57		1.57
Italian	.22	.87	.47
Japanese	1.31	1.47	1.39
Norwegian	1.33	1.65	1.49
Panaman	1.29	1.33	1.32
Peruvian	.13		.13
Swedish	1.27	2.76	2.09
United States	.92	1.48	1.22
Yugoslav	1.57	1.99	1.70
Averages, May, 1929	.93	1.44	1.20
Averages, May, 1928	.90	1.51	1.27
Averages, May, 1927	.97	1.56	1.31

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of May, 1929, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls.
Tank ships:						
Laden	4	19,707	$18,598.05	48	247,708	$258,718.00
Ballast	48	266,680	192,009.60	1	4,345	3,128.40
General cargo ships:						
Laden	207	974,743	898,939.05	189	874,461	824,513.10
Ballast	16	67,722	48,707.11	4	12,020	8,654.40
Noncargo-carrying ships:						
Naval vessels	1		5,875.00	1		14,892.00
Passenger vessels				2	29,256	22,322.50
Yachts	2	243	174.96	1	20	14.40
Totals	278	1,329,095	1,164,303.77	246	1,167,810	1,132,242.80
Method of propulsion:						
Steam	222	1,049,913	940,467.63	199	937,975	917,852.11
Motor	55	278,875	223,467.74	46	229,815	214,376.29
Motor schooner	1	307	368.40	1	20	14.40
Totals	278	1,329,095	1,164,303.77	246	1,167,810	1,132,242.80

Of the 421 steam-driven vessels, 300 were oil burning, 116 coal burning, and five burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of May, 1929. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Ammunition ships	[1]	4,405	$5,506.25			
Cruisers	[3]	9,600	4,800.00	[4]	11,025	$5,512.50
Mine sweepers	[3]	2,850	1,425.00	[4]	3,800	1,900.00
Motor sailers	[4]	40	30.00			
Store ships				[1]	3,394	4,242.50
Submarines	[4]	5,496	2,748.00	[5]	4,314	2,157.00
Supply ships	[1]	3,434	4,292.50			
Tankers	[1]	5,120	3,840.00	[1]	5,003	6,003.60
U. S. Army vessels:						
Launches	[1]	10	7.50			
Mine planters	[2]	2,416	1,208.00			
Transports	[1]	3,908	4,885.00	[4]	15,177	18,971.25
Totals, U. S. Government	21		28,742.25	19		38,786.85
Panaman Government vessels:						
Transports	[1]	101	72.72			
Vessels for repairs:						
Tankers	[1]	1,645	1,233.75	[1]	1,645	1,233.75
Grand totals	23		30,048.72	20		40,020.60

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of May, 1929, carried cargo as follows: Atlantic to Pacific, 7,135 tons; Pacific to Atlantic, 951 tons; total, 8,086 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement transiting the Canal during the month of May, 1929. These launches, although paying tolls, are exempted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.
Atlantic to Pacific	12	100	$106.08
Pacific to Atlantic	6	71	73.50
Totals	18	171	$179.58

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of May, 1929, are shown in the following tabulation:

	Cristobal.	Balboa.	Total.
Local cargo arriving, tons	143,312	60,539	203,851
Local cargo shipped, tons	9,920	1,004	10,924
Transit cargo arriving, tons	2,579,487	2,558,932	5,138,419
Transit cargo clearing, tons	2,574,434	2,540,394	5,114,828
Cargo received for transshipment, tons	39,792	87	39,879
Cargo transshipped, tons	38,259	40	38,299
"Canal Zone for Orders" cargo:			
Number of receipts issued	80	31	111
Number of withdrawals	416	183	599
Tons received	2,123	257	2,380
Tons withdrawn	1,540	184	1,724
Packages received	6,588	3,081	9,669
Packages withdrawn	6,154	2,043	8,197
Vessels supplied with bunker coal:			
Commercial, other than Panama Railroad Company	75	4	79
Coal supplied to above vessels:			
Commercial, other than Panama Railroad Company, tons	23,078	66	23,144
Coal issued, miscellaneous:			
Panama Canal departments, tons	105	57	162
U. S. Army, excepting vessels, tons	31	1	32
Individuals and companies, tons	185	.....	185
Panama Railroad Company, tons	11	.....	11
Transferred to Navy, tons	124	.....	124
Total sales and issues, tons	23,534	124	23,658
Coal on hand May 1, 1929, tons	52,562	.....	52,562
Coal on hand, June 1, 1929, tons	68,374	.....	68,374
Coal received during month, tons	39,346	.....	39,346
Coal received from Navy, tons	.....	124	124
Fuel oil issued from Panama Canal tanks:			
Panama Canal departments, bbls.	7,033.37	17,129.94	24,163.31
Panama Railroad Company, bbls.	519.64	.....	519.64
U. S. Army and Navy, bbls.	.....	425.69	425.69
Individuals and companies, bbls.	.....	139.62	139.62
Total sales and issues, bbls.	7,553.01	17,695.25	25,248.26
Fuel oil on hand, June 1, 1929, bbls.	18,325.13	8,190.48	26,515.61
Diesel oil received during May, bbls.	.....	1,562.00	1,562.00
Diesel oil sold during May, bbls.	100.26	1,562.00	1,662.26
Diesel oil on hand, June 1, 1929, bbls.	16,572.80	493.25	17,066.05
Miscellaneous transfers, bbls.	429.48	17,551.91	17,981.39
Gasoline and kerosene pumped for The Panama Canal, bbls.	8,940.46	14,272.72	23,213.18
Gasoline pumped for individuals and companies, bbls.	689.12	6,212.25	6,901.37
Oil pumped for individuals and companies, bbls.	592,317.50	489,122.03	1,081,439.53
Oil pumped for U. S. Shipping Board, bbls.	.....	17,068.54	17,068.54
Oil pumped for U. S. Navy, bbls.	2,715.00	53,333.00	56,048.00
Total fuel oil, gasoline and kerosene handled, bbls.	612,744.83	615,255.70	1,228,000.53
Admeasurement of vessels:			
U. S. equivalent certificates issued	25	2	27
Measured for Panama Canal net tonnage	10	1	11
Remeasured for Panama Canal net tonnage	22	2	24
Panama Canal net tonnage corrected	.....	8	8
U. S. equivalent tonnage corrected	7	16	23
Services of harbor equipment:			
Tugs, total operating hours	491¾	347	838¾
Launches, total operating hours	1,474½	1,875	3,349½

	Cristobal.	Balboa.	Total.
Revenue from tug service, pilotage, etc.:			
Tug revenue	$15,307.50	$11,630.00	$26,937.50
Pilotage	20,619.00	7,974.00	28,593.00
Seamen	12,960.00	11,552.00	24,512.00
Launch service	2,049.50	2,972.50	5,022.00
Wharfage	16,960.25	5,515.89	22,476.14
Ships measured	165.00	10.00	175.00
Miscellaneous	900.85	507.00	1,407.85
Ships repaired at Panama Canal shops:			
Commercial	62	12	74
U. S. Army and Navy	8	6	14
Panama Canal equipment	3	7	10
Totals	73	25	98
Vessels dry-docked:			
Commercial	7	5	12
U. S. Army and Navy	3	1	4
Panama Canal equipment		2	2
Totals	10	8	18
Clearances issued	302	290	592
Bills of health issued	313	292	605

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships Entering.						
All vessels, including those transiting Canal	626	3,615,574	2,219,979	557	3,336,261	2,060,517
Vessels entering port but not transiting Canal	72	334,307	201,148	11	36,041	22,440
Vessels transiting Canal and handling passengers and cargo at terminal ports	128	800,117	481,824	106	616,713	373,850
Ships Clearing.						
All vessels, including those transiting Canal	618	3,595,121	2,205,961	561	3,332,700	2,060,906
Vessels clearing port but not transiting Canal	71	343,855	205,738	14	41,923	26,004
Vessels transiting Canal and handling passengers and cargo at terminal ports	123	797,315	479,949	106	619,663	376,928

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,228	947	2,175	26	46	72
From Pacific ports	228	152	380	325	189	514
Total disembarking	1,456	1,099	2,555	351	235	586
Embarking:						
For Atlantic ports	1,751	1,027	2,778	121	476	597
For Pacific ports	251	251	502	306	184	490
Total embarking	2,002	1,278	3,280	427	660	1,087
Remaining on board:						
From Atlantic to Pacific ports	1,261	2,242	3,503	1,486	2,447	3,933
From Pacific to Atlantic ports	1,972	3,340	5,312	2,079	3,016	5,095
From Atlantic to Atlantic ports	515	196	711			
From Pacific to Pacific ports				13	154	167
Total remaining on board	3,748	5,778	9,526	3,578	5,617	9,195
Total arriving	5,204	6,877	12,081	3,929	5,852	9,781
Total departing	5,750	7,056	12,806	4,005	6,277	10,282

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	278	56	20.2
Pacific to Atlantic	246	49	19.9
Totals	524	105	20.0

In addition to the aforesaid, 73 passenger-carrying vessels called at the port of Cristobal and 2 at Balboa without transiting the Canal, making a total of 180 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of May, 1929:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$2,666.31	$13,881.91	$28,461.58	$536.52	$7,919.94	$53,466.26
Government vessels	168.75	871.10	10,228.39	116.74	1,134.61	12,519.59
P. R. R. vessels	9.45	179.86	1,698.17	595.02	361.15	2,843.65
Total sales, May, 1929	2,844.51	14,932.87	40,388.14	1,248.28	9,415.70	68,829.50
Total sales, May, 1928	2,098.03	13,202.83	41,109.58	911.83	8,028.57	65,350.84
Total sales, May, 1927	1,830.20	16,083.63	49,354.60	1,078.20	8,830.40	77,177.03
Sales at Balboa to:						
Commercial vessels	732.53	12,048.45	13,636.84	263.80	5,062.08	31,743.70
Government vessels	1,537.44	1,889.76	13,373.00	834.69	986.31	18,621.20
P. R. R. vessels				40.28		40.28
Total sales, May, 1929	2,269.97	13,938.21	27,009.84	1,138.77	6,048.39	50,405.18
Total sales, May, 1928	1,687.98	15,890.82	31,380.49	1,040.79	6,435.62	56,435.70
Total sales, May, 1927	1,132.46	10,758.92	23,412.76	443.02	4,780.07	40,527.23

The aggregate sales to Government vessels during the month was $31,140.79; to Panama Railroad vessels, $2,883.93; and to other commercial vessels, $85,209.96; making the total sales to all vessels, $119,234.68.

LOCK OPERATIONS.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of May, 1929, as compared with the corresponding month in 1928 and 1927:

Locks.	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial.[1]					
	North.	South.	Total.	North.	South.	Total.	May 1929.	May 1928.	May 1927.
Gatun	234	263	497	9	6	15	512	498	460
Pedro Miguel	232	248	480	12	16	28	508	531	495
Miraflores	233	247	480	12	12	24	504	519	484
	Number of vessels put through locks.								
Gatun	246	279	525	41	39	80	605	590	546
Pedro Miguel	246	278	524	58	60	118	642	625	600
Miraflores	246	278	524	45	49	104	628	610	603

[1] Includes tolls-paying launches under 20 tons.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	48	42	41
Panama Canal equipment	10	64	51
Launches (under 20 tons)	19	9	9
Panaman Government vessels	1	1	1
Vessels for repairs	2	2	2

The total consumption of water for lockages and loss in leakage was as follows in May, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,549,000,000	1,327,630,000	1,375,420,000
Leakage	30,000,000	.....	20,000,000
Totals, May, 1929	1,579,000,000	1,327,630,000	1,395,420,000
Totals, April, 1929	1,109,080,000	1,333,090,000	1,410,370,000
Totals, May, 1928	1,679,830,000	1,518,820,000	1,602,320,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of May, 1929, are shown in comparative form in the following tabulation:

	May.		May—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	1,750	1,423	5,220	491	2,088
Maximum momentary discharge for the month	12,070	20,874	[1]61,200	231	.....
Gatun Lake watershed, total yield	3,812	3,622	8,665	1,417	4,551
Gatun Lake watershed, net yield	3,154	2,964	7,964	583	3,891
Draft on Gatun Lake for lockages and power	2,663	2,681	2,704	[2]1,067	[2]2,035

[1] May 5, 1918. [2] May, 1914, not included.

The total yield of the Gatun Lake watershed was 16 per cent below the 16-year May average, or 3,812 c. f. s., compared with an average of 4,551 c. f. s. Maximum and minimum total yields of record for May are 8,665 c. f. s. in 1918 and 1,417 c. f. s. in 1920, respectively. The lake varied from the minimum elevation of 82.50 feet on the 15th to 83.17 feet on the 31st, averaged 82.82 feet, and ended at elevation 83.13 feet. Miraflores Lake varied from elevation 53.06 feet on the 27th and 28th to 53.98 feet on the 21st, averaged 53.55 feet, and ended at elevation 53.36 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 1st, 25th, 26th and 30th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,584,000 kilowatt hours, and the computed water consumption was 4,255,873,152 cubic feet. Continuous service was maintained at this station throughout the month. The Miraflores Diesel-electric station had a gross generator output of 25,000 kilowatt hours, and the fuel oil consumption was 70.15 barrels. Load was carried by Diesel units three times during the month. Overhaul of engines continued throughout the month.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were completed on 44 vessels during the month. There were 349 work orders issued during the month, as compared with 374 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 73 vessels at Cristobal and 28 at Balboa. Ten vessels were dry-docked at Cristobal and 8 at Balboa. Annual overhaul of the United States submarine *S-14* was started during the month. Work was carried forward on the annual overhaul of the mine planter *Graham*. Work was completed on tug *Trinidad* and tug *Coco Solo* during the month.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. On the Madden Road, 5,000 linear feet were cleared and 22,000 cubic yards of material were moved in connection with the grading. At the site of the Madden Dam the operation of diamond drills was continued throughout the month.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 762,439,250 gallons.

DREDGING DIVISION.

West Lirio slide showed movement during the entire month of May. A dipper dredge worked 15½ days on the slide, excavating 86,750 cubic yards of material. Cucaracha, South Cucaracha, East and West Culebra slides showed no movement during the month. There were no other slides and no delays to shipping during the month.

The total excavation during May was 519,390 cubic yards as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:	*Cubic yards*	*Cubic yards*	*Cubic yards*
Canal prism, Gaillard cut—			
Project No. 2	4,400	41,000	45,400
Lirio slide	17,350	69,400	86,750
Canal prism, Pacific entrance:			
Project No. 1 (extension)	130,700		130,700
Maintenance	18,900		18,900
Balboa inner harbor:			
Project No. 1	3,000	65,000	68,000
Maintenance	3,350		3,350
Plant excavation:			
Albrook Field	165,200		165,200
Dredging sand at Chame	1,090		1,090
Totals	343,990	175,400	519,390

On the Albrook Field project 165,200 cubic yards of material were pumped into the fill through an average pipeline length of 7,356 feet and an average lift of 18 feet. Of the amount pumped into the field, 119,000 cubic yards remained in place.

The ferry crossing at the north end of Pedro Miguel locks operated 31 days during the month. Five hundred and twenty-six trips were made, and 215 Panama Canal, 77 U. S. Army, and 3,543 other vehicles, a total of 3,835, were ferried across the Canal.

OCCUPANTS OF QUARTERS.

The number of persons, including men, women and children, occupying Panama Canal quarters on May 31, 1929, totaled 21,786, composed of 7,590 Americans, 2,734 of whom were men, 2,271 women, and 2,585 children; 239 Europeans, 96 of whom were men, 37 women, and 106 children; and 13,957 West Indians, 4,219 of whom were men, 2,596 women, and 7,142 children. The total number of persons in quarters on May 31, 1928, was 21,400.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of May 15, 1929, with a comparison of the working force for the preceding month and for May, 1928:

	As of May 15, 1929.			Total employees.	
	Gold.	Silver.	Total.	April 1929.	May 1928.
Operation and Maintenance:					
Office	45	62	107	110	78
Electrical	155	166	321	323	350
Municipal Engineering	116	1,769	1,885	1,968	757
Lock Operation	307	972	1,279	1,389	913
Dredging	193	990	1,183	1,187	1,047
Mechanical	430	845	1,275	1,235	1,267
Marine	212	699	911	966	881
Fortifications	32	527	559	472	307
Totals	1,490	6,030	7,520	7,550	5,600
Supply Department:					
Quartermaster	205	1,930	2,135	2,034	2,003
Subsistence	8	104	112	117	113
Commissary	225	1,276	1,501	1,499	1,343
Cattle Industry	4	151	155	162	147
Hotel Washington	8	106	114	119	106
Transportation	68	226	294	297	265
Totals	518	3,793	4,311	4,228	3,977

	As of May 15, 1929			Total employees.	
	Gold.	Silver.	Total.	April 1929.	May 1928.
Accounting Department	200	6	206	202	201
Health Department	272	825	1,097	1,094	1,166
Executive Department	518	294	812	815	787
Totals	990	1,125	2,115	2,111	2,154
Panama Railroad Company:					
Superintendent	46	282	328	344	299
Transportation	63	131	194	190	176
Receiving and Forwarding Agency	99	1,509	1,608	1,626	1,342
Coaling Stations	48	279	327	419	323
Totals	256	2,201	2,457	2,579	2,140
Grand totals, May, 1929	3,254	13,149	16,403	.....	.....
Grand totals, April, 1929	3,212	13,256	.....	16,468	.....
Grand totals, May, 1928	3,022	10,849	.....	.....	13,871

Additions to the gold force on the Isthmus in May were as follows: Employed in the United States, 11; reemployed in the United States, 1; employed on the Isthmus, 32; reemployed on the Isthmus, 15; total 59. Separations from the gold force totaled 43, as follows: Resigned, 26; discharged, 13; retired, 1; died, 3. At the end of the month there were on file 251 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 206 deaths occurred during the month of May, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 19.09 per 1,000 population. The leading causes of death were: Pneumonia (broncho and lobar), 30; tuberculosis (various organs), 25; organic diseases of the heart, 19; nephritis (acute and chronic), 18; and diarrhea and enteritis, 17. There were 12 deaths from cancer, 10 from apoplexy, 8 from syphilis, and 1 each from typhoid fever, diphtheria, dysentery and erysipelas. There were 19 deaths among nonresidents. These are not included in the above statistics.

There were 288 live births, and 7 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 27.33 per 1,000 population. Deaths among children under 1 year of age numbered 41, giving an infant mortality rate based on the number of live births reported of 142.36.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during May was 120, of whom 30 were employees (5 white and 25 colored), 8 were members of employees' families (1 white and 7 colored), 11 were Canal Zone agriculturists, 18 were other civilian nonemployees, and 53 were Army and Navy personnel. Of the 38 employees and members of employees' families, 33 were probably infected outside our sanitated areas, as they gave a history of working, living, or having been in such areas at night previous to their becoming sick. There was 1 death from malaria among residents, a black nonemployee residing in Panama, regarding whom no data as to probable place of infection were obtainable.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $352,478.12, of which $326,888.82 was for the Department of Operation and Maintenance and $25,589.30 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to $52,742.37.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of April, 1929, as compared with April, 1928, and the figures for the first ten months of the current fiscal year as compared with the same period in the fiscal year 1928.

It is impossible to submit the figures for the month of May at the time of writing this report, since all charges, etc., involved in the accounting have not been completed.

	April 1929.	April 1928.	To end of April.	
			This year.	Last year.
Tolls	$2,278,505.21	$2,187,724.47	$22,699,003.31	$22,808,175.49
Other receipts	338,360.76	288,361.14	3,300,897.89	2,951,120.02
Total transit revenues	2,616,865.97	2,476,085.61	25,999,901.20	25,759,295.51
Total transit expenses	1,255,023.73	1,056,391.47	11,052,246.87	10,123,177.78
Net transit revenues	1,361,842.24	1,419,694.14	14,947,654.33	15,636,117.73
Three per cent capital charge	614,929.83	612,372.24	6,157,594.50	6,115,902.54
Transit surplus	746,912.41	807,321.90	8,790,059.83	9,520,215.19
Business revenues	1,419,405.43	1,446,910.47	14,299,269.00	13,867,863.11
Business expenses	1,335,606.78	1,405,094.43	13,406,046.70	13,126,212.34
Net business revenues	83,798.65	41,816.04	893,222.30	741,650.77
Three per cent capital charge	62,153.07	59,980.25	649,615.22	647,570.67
Business surplus	21,645.58	[1]18,164.21	243,607.08	94,080.10
Combined revenues	4,036,271.40	3,922,996.08	40,299,170.20	39,627,158.62
Combined expenses	2,590,630.51	2,461,485.90	24,458,293.57	23,249,390.12
Net revenues	1,445,640.89	1,461,510.18	15,840,876.63	16,377,768.50
Three per cent capital charge	677,082.90	672,352.49	6,807,209.72	6,763,473.21
Combined surplus	768,557.99	789,157.69	9,033,666.91	9,614,295.49

[1] Indicates deficit.

Respectfully,

J. L. SCHLEY,
Acting Governor.

Notices to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *June 14, 1929.*

No. 549.

The following was received by the Hydrographic Office through the Marine Superintendent, The Panama Canal:

U. S. S. *Galveston*, June 14, construction work beacons entering range, Corinto Harbor, completed, lights burning. Front range, fixed white; rear range, occulting white; period 10 seconds, flash 2 seconds eclipse 8 seconds. (No signature).

J. L. SCHLEY,
Acting Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *June 21, 1929.*

No. 552.

The South Frailes whistling buoy near Cape Mala, R. P., is reported missing. Further notice will be given when buoy is replaced.

J. L. SCHLEY,
Acting Governor.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *June 27, 1929.*

No. 554.

The following is quoted from Notice to Mariners, Washington, June 15, 1929:

Venezuela, Gulf of Venezuela, Las Piedras Bay, Light Discontinued. The second officer of the American steamer *Haxbar* reports that the fixed white light elevated 100 feet and visible 5 miles formerly shown on the bluff overlooking the bay, in latitude 11° 42′ 18″ N., longitude 70° 13′ 22″ W., no longer exists.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending June 22, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Martha	H. C. Stevenson		June 16		640
Floreana	Colombian Transport Co		June 16		487
Stella	Panama Mail S. S. Co		June 16		1,390½
Manizales	North German Lloyd		June 16		322
Heredia	United Fruit Co		June 16		109
Axel Johnson	Johnson Line		June 16		806
Portland	Hamburg-American Line		June 16		474
Wanks	Standard Fruit & S. S. Co		June 16		1½
Orinoco	Hamburg-American Line		June 16		1,247
Lisbon Maru	Nippon Yusen Kaisha	June 16	June 16	106	(2)
Toloa	United Fruit Co	June 16	June 16	¾	164
Carl Legien	Hamburg-American Line	June 16	June 17	385	388
Coppename	United Fruit Co	June 17	June 17	14	78
Santa Barbara	Grace Line	June 17	June 17	60	24
Cid	Pacific Steam Nav. Co	June 17	June 18	580	58
Calamares	United Fruit Co	June 17	June 19	1,072	52
Uribe	Estrada G. Hermanos	June 18		476	
Moveria	Donaldson Brothers	June 18	June 19	(1)	347
Acajutla	Pacific Steam Nav. Co	June 18		339	
Metapan	United Fruit Co	June 19	June 20	348	259
Argun Maru	Osaka Shosen Kaisha	June 19	June 20	443	(2)
Orcoma	Pacific Steam Nav. Co	June 19	June 20	129	42
Ancon	Panama R. R. S. S. Line	June 19		5,689	
Juan S. Elcano	Spanish Line	June 19		185	
Inapaquina	United Fruit Co	June 19	June 21	52	(2)
Pacific Grove	Furness, Withy & Co	June 19	June 21	(1)	315
Nitokris	Hamburg-American Line	June 19	June 22	140	596
Heluan	Hamburg-American Line	June 20	June 20	48	(2)
Essequibo	Pacific Steam Nav. Co	June 20	June 21	37	(2)
Suriname	United Fruit Co	June 20	June 21	563	112
Cali	North German Lloyd	June 20	June 22	765	314
Orazio	Italian Line	June 20	June 22	580	(2)
Salvador	Pacific Steam Nav. Co		June 21		1,026
Cauca	National Navigation Co		June 21		213
Caldas	National Navigation Co	June 21		244	
Coppename	United Fruit Co	June 21	June 21	11	553½
San Jose	United Fruit Co	June 21	June 22	365	158
Heinrich Arp	Colombian Mar. Co	June 21	June 22	11	(2)
Swiftarrow	C. D. Mallory & Co	June 21		11,917	
San Francisco	Hamburg-American Line	June 21	June 22	(1)	123
Macabi	United Fruit Co	June 21		35	452
Atlantida	Standard Fruit & S. S. Co	June 21		119	609
Guatemala	Panama Mail S. S. Co	June 22		525	
Nosa King	N. O. & S. A. S. S. Co	June 22		13	
Cartago	United Fruit Co	June 22		619	
William M.	R. Feuillebois	June 22	June 22	(1)	30
Indiana	French Line	June 22		471	
Wanks	Standard Fruit & S. S. Co	June 22		75	
Losada	Pacific Steam Nav. Co	June 22		80	
La Paz	Pacific Steam Nav. Co	June 22		58	
Ariguani	Elders & Fyffes, Ltd	June 22	June 22	15	(2)

[1] No cargo discharged. [2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending June 22, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Sirius	U. S. Navy	June 10	June 10	104	3
Tong King	East Asiatic Co	June 10	June 10	542	
M. F. Elliott	Standard Shipping Co	June 11	June 12	3,888	
Venezuela	Panama Mail S. S. Co	June 11	June 11	26	
Chateau Thierry	U. S. Army	June 11	June 12		29
El Salvador	Panama Mail S. S. Co	June 12	June 13	185	
City of Panama	Panama Mail S. S. Co	June 13	June 13		5
Baarn	Royal Neth. S. S. Co	June 14	June 15	169	
Bennekom	Royal Neth. S. S. Co	June 15	June 15	130	26
Lisbon Maru	Nippon Yusen Kaisha	June 15	June 16	169	
Minden	North German Lloyd	June 15	June 16	4	
Emma H. Coppage	Texas Co	June 16	June 17	10,004	
Cedarhurst	Steamer Cedarhurst Corp	June 18	June 20	6,922	
Acajutla	Pacific Steam Nav. Co	June 18	June 18	4	
Argun Maru	Osaka Shosen Kaisha	June 19	June 19	430	
Swiftsure	Farmers L. & T. Co	June 19	June 20	11,193	
Cauca	National Navigation Co	June 21	June 21		29

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 22, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Floreana [2]	5-31	16.00	16	6.12	16	14.35	16	19.47	Colombian.	Colombian Transp. Co.	150.0	27.0	10 3	Cristobal, C. Z	Buenaventura, Col.	General	500	410	307
Martha [1]	6-10	16 47	16	6.15	16	15 18	17	18 10	Norwegian.	H. C. Stevenson	183.0	30 0	14 2	Cristobal, C. Z	Pt. Armuelles, R.P.	General	635	780	504
Stella	12	18 50	16	6 10	16	14 30	16	16.00	Norwegian.	Panama Mail S. S. Co.	195 1	32 9	16 3	Cristobal, C. Z	Puntarenas, C. R.	General	1,350	985	606
Belgium Maru	15	20 45	16	6.15	16	13.45	16	15 20	Japanese	Kokusai Kisen Kaisha.	385.0	51 0	13 0	Wilmington, Del.	Tocopilla, Chile	Ballast		6,219	4,611
Canadian Conqueror	15	20 40	16	7.30	16	16.18	16	18 05	British	Can. Nat. Steamships	400.4	52 0	23 8	Montreal, Canada	Dunedin, N. Z	General	4,653	5,954	4,139
Marija Petrinovic	16	1 38	16	7 32	16	17 15	16	18 41	Yugoslav	Baburizza & Co	399 6	53 0	25 0	Split, Ser, Cr., Slov.	Antofagasta, Chile.	Cement	6,660	5,508	4,163
Lica Maersk	16	6.10	16	8.35	16	17 40	17	1 04	Danish	Isbrandtsen Moller Co.	308 0	44 0	16 6	New York, N. Y	Yokohama, Japan	General	2,640	3,361	2,562
Anglo-Indian [3]	16	5 10	16	8 15	16	19 07	16	20 55	British	Lawther Latta & Co	426 0	59 6	25 9	Galveston, Tex	Port Pirie, Aust'lia	Sulphur	8,700	7,130	5,322
Portland [3]	15	6.20	16	9.45	16	18 00	16	23 05	German	Hamburg-American Line	462 2	61 2	24 0	Hamburg, Germany	Vancouver, B. C.	General, bananas	6,431	9,139	6,666
Illinois [3]	16	6 50	16	9 50	16	18 39	16	20 06	American	The Texas S. S. Co	416 8	56 1	18.0	New York, N. Y	Wilmington, Calif.	Ballast		7,150	5,330
Manizales	13	21 05	16	13 20	16	20 16	16	21 40	German	North German Lloyd	216 5	32 9	13 7	Cristobal, C. Z	Buenaventura, Col.	General	410	1,132	741
Hororata	16	6 30	17	6.00	17	13 47	17	15.00	British	N. Z. Shipping Co	511 1	64 1	31 6	London, England	Auckland, N. Z.	General	7,826	12,623	8,763
Cape Ortegal	17	1 30	17	6 25	17	14 38	17	15.35	British	Lyle Shipping Co	405 0	52 0	20.0	Newc'tle-on-Tyne	Vancouver, B. C.	(7)	4,538	6,650	4,071
Bohemian Club [1]	17	1 40	17	7.30	17	14 58	17	16.15	American	Atlantic Refining Co	425.0	57 2	22.0	New York, N. Y	Los Angeles, Calif.	Ballast		7,204	4,739
Carl Legien	16	2 00	17	8 35	17	15 45	17	17 00	German	Hamburg-American Line	409 8	53 9	25 0	Hamburg, Germany	Valparaiso, Chile	General	5,867	7,145	5,474
La Perla	17	8 15	17	9.55	17	16.36	18	1.26	American	United Fruit Co	325 2	48 1	19 0	Port Limon, C. R.	San Francisco, Cal.	Bananas	480	4,033	2,261
Cedarhurst [1]	17	10 10	17	11 00	17	20 34			American	West India Oil Co	390 0	54 2	25 0	Baytown, Texas	Los Angeles, Calif.	Fuel oil [8]	6,922	6,209	4,303
Creole Lindo [1] [4]	17	1 05	17	12 35	17	19 18			Venezuelan	Venezuela Gulf Oil Co.	325 0	55 0	9 6	Las Piedras, Ven	Balboa, C. Z	Ballast			
Volunteer	17	15 43	17	16 25	18	11 00	18	12 20	American	Tampa Interocean Co.	410 0	56 0	28 4	New Orleans, La	Iloilo, P. I	General	8,987	8,214	6,183
West Cactus	17	17.50	17	18 05	18	11.45	18	13 05	American	McCormick S. S. Co	420 0	54 0	18 0	Buenos Aires, Arg	San Francisco, Cal.	(9)	1,976	6,625	5,046
Mallard [5]			17	8 10	17	14.54			American	U. S. Navy	180 0	35 6		Cristobal, C. Z	Balboa, C. Z				
Suwied	17	20.05	18	6.15	18	13 12	18	15.15	American	Charles Nelson & Co.	324 0	46 2	18 6	Charleston, S. C.	Seattle, Wash	General	3,461	3,983	2,629
Mobile City	17	22 50	18	7 20	18	14 50	18	19.57	American	Isthmian S. S. Lines	395 5	55 0	27.0	Baltimore, Md	Vancouver, B. C.	General, steel	8,804	7,330	5,241
Kenowis [6]	18	2 00	18	8.30	18	15 18			American	U. S. Army	390 0	54 2	20 6	New York, N. Y.	Balboa, C. Z	Army supplies	3,306		
Benedick [1] [3]	18	6.18	18	9 45	18	17 29	18	21 52	British	C. T. Bowring & Co	431 0	58 3	20 0	Southampton, Eng.	Los Angeles, Calif	Ballast		7,285	4,856
Phoenix [1]	18	10 45	18	11.05	18	18 05	18	19 55	American	American Tankers Corp	400 8	54.0	19 0	Philadelphia, Pa.	Talara, Peru	Ballast		6,336	4,389
Gothicstar	18	11.10	18	12.30	18	19 26	18	20 30	British	Blue Star Line	420 0	55 0	19 6	Newcastle, Engl'd	Vancouver, B. C.	Ballast		7,521	5,852
West Lynn [3]	18	19 05	18	19 25	19	11 46	19	14.15	British	Texas Gulf-Sulphur Co.	415.0	54.3	24.10	Galveston, Tex	Fremantle, Aust'lia	Sulphur	7,700	6,752	5,161
Novasli	18	23.45	19	6 30	19	13 00	19	14 10	Norwegian.	Moore & McCormack	342.2	48 0	15 6	Valparaiso, Chile	General		800	3,929	2,798
Jane Christenson	19	3.10	19	7.05	19	14.17	19	15 40	American	Arrow Line	409 0	54 2	18 6	Baltimore, Md	San Francisco, Cal.	General	3,782	6,615	4,966
Lewis Luckenbach.	19	5.20	19	8 25	19	15 04	19	16 05	American	Luckenbach Line	496 0	68.2	22.6	Boston, Mass	Seattle, Wash	General	4,862	11,487	8,762
Missourian [3]	19	6.10	19	9.20	19	16 48	19	17 55	American	Amer.-Hawaiian Line	445 0	59 8	19.6	Boston, Mass	Tacoma, Wash	General	4,680	8,567	6,020
Moveria [3]	18	1.40	19	11.25	19	17 52	19	18 56	British	Donaldson Brothers	385 6	51.0	19 7	Glasgow, England	Vancouver, B. C.	General	1,450	6,576	4,724
El Ciervo [1]	19	11.40	19	12.00	19	19.13	19	20.25	British	Anglo-Ecuador Oilfields.	407.0	52.0	18.0	Philadelphia, Pa.	La Libertad, Ecua.	Ballast		6,046	4,326

[1] Tanker. [2] Motor schooner. [3] Motor ship. [4] South to Balboa for dry-docking. [5] Mine sweeper. [6] U. S. Army transport. [7] Coke, steel, and firebricks.
[8] Cargo discharged at Balboa. [9] Coffee, linseed, and general.

Malang	19	15.15	19	17.50	20	9.19	20	10.34	American	C. D. Mallory & Co	345.0	50.0	20.0	Philadelphia, Pa.	San Francisco, Cal.	Steel, cardboard	4,177	4,339	3,019
Oreoma	19	16.28	20	6.10	20	13.08	20	14.25	British	Pacific Steam Nav. Co.	511.0	62.0	25.3	Liverpool, England	Valparaiso, Chile	General	3,858	12,417	8,305
City of Hereford	19	18.25	20	6.28	20	14.43	20	16.00	British	Ellerman Lines, Ltd	385.0	51.9	25.8	Philadelphia, Pa.	Adelaide, Australia	General	4,765	5,787	4,033
Orient	19	19.52	20	7.12	20	15.17	20	16.35	American	States Steamship Co.	376.0	52.0	23.0	Wilmington, Del.	Portland, Oreg.	General	4,864	5,455	3,879
India Arrow [1]	19	21.25	20	7.20	20	15.07	20	16.20	American	Standard Oil Co.	468.3	62.7	18.0	Boston, Mass.	Los Angeles, Calif.	Ballast		10,084	7,426
Taketoyo Maru	20	00.02	20	8.30	20	16.18	20	17.34	Japanese	Nippon Yusen Kaisha	445.0	58.0	23.8	New York, N. Y.	Kobe, Japan	General	7,506	7,972	5,687
Larry Doheny [1]	20	5.30	20	10.00	20	16.58	20	18.05	American	Acewood Petroleum Co.	430.0	59.2	19.4	New York, N. Y.	Los Angeles, Calif.	Ballast		7,494	5,198
Birchbank [1]	20	5.45	20	10.50	20	17.30	20	23.15	British	Bank Line, Ltd	420.0	53.9	15.0	Baltimore, Md.	Antofagasta, Chile	Ballast		7,137	5,054
Nyanza	20	6.10	20	12.05	20	18.53	20	19.55	British	Wessel, Duval & Co.	403.0	52.0	17.0	New York, N. Y.	Talcahuano, Chile	(11)	2,000	5,583	4,073
Italy Maru	20	16.07	20	19.40	21	9.30	21	11.00	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	24.6	Norfolk, Va.	Yawata, Japan	General, etc.	5,811	5,914	4,388
Pacific Grove [1]	19	14.35	21	6.12	21	13.10	21	14.20	British	Furness Pacific Line	450.0	60.6	20.5	Glasgow-England	Vancouver, B. C.	General, bananas	1,268	10,086	7,226
J. R. Gordon	21	4.35	21	7.10	21	14.17	21	15.50	American	Texas-Gulf Sulphur Co.	409.0	54.0	20.6	Galveston, Texas	Port Alice, B. C.	Sulphur	4,730	6,581	4,784
Florence Luckenbach	21	4.50	21	8.10	21	15.39	21	16.40	American	Luckenbach Line	401.8	52.0	21.0	Houston, Texas	Tacoma, Wash	General	4,925	6,002	4,621
Salvador	7	13.50	21	9.32	21	18.30	21	19.38	British	Pacific Steam Nav. Co.	215.0	33.5	16.7	Cristobal, C. Z.	Champerico, Guat.	General	984	1,270	735
Cauca [1]	14	9.20	21	9.45	21	18.21	22	5.15	Colombian	National Navigation Co.	107.2	22.0	10.0	Cristobal, C. Z.	Buenaventura, Col.	General	215	238	163
Sartaria [10]	21	7.00	21	9.40	21	18.02			American	Benjamin Clayton	73.5	21.0	6.0	Booth Bay, Me.	Los Angeles, Calif.	Ballast		65	50
Essequibo	20	21.15	21	10.45	21	18.11	21	19.00	British	Pacific Steam Nav. Co.	450.0	57.8	26.5	New York, N. Y.	Talcahuano, Chile	General	3,983	9,158	6,176
Havre Maru	21	15.47	21	17.05	22	12.11	22	13.40	Japanese	Osaka Shosen Kaisha	407.3	50.10	24.6	Galveston, Texas	Shanghai, China	General	6,845	6,539	4,773
Orazio [1]	20	5.25	22	6.10	22	12.55	22	19.41	Italian	Nav. Gen. Italiana	484.0	61.8	24.10	Genoa, Italy	Valparaiso, Chile	General	1,169	12,977	9,373
Silverbeech [1]	21	22.50	22	7.20	22	14.21	22	22.17	British	Kerr Steamship Line	425.6	58.3	19.10	New York, N. Y.	Batavia, Java	General	4,388	8,226	6,039
Port Gisborne [1]	22	5.40	22	7.35	22	15.09	22	22.17	British	Com'lth & Dom. Line	475.0	63.0	23.0	New York, N. Y.	Dunedin, N. Z.	General	9,226	10,678	7,360
Mongolia	22	7.35	22	8.30	22	15.54	22	24.00	American	Panama-Pacific Line	600.0	65.3	27.6	New York, N. Y.	San Francisco, Cal.	General	3,153	17,041	11,426
Point Gorda	22	3.50	22	8.50	22	16.26	22	17.35	American	Swayne & Hoyt	324.0	46.2	22.6	Galveston, Tex.	Tacoma, Wash	Sulphur, general	3,750	3,984	2,643
Reaper [1]	21	23.45	22	9.45	22	16.51	22	18.00	American	The Texas S. S. Co	416.8	56.1	16.0	Chester, Pa.	Los Angeles, Calif.	Ballast		7,137	5,286
Nordfarer [1]	22	2.20	22	10.50	22	17.50	22	22.18	Danish	Flood Lines	384.0	54.4	24.0	Antwerp, Belgium	San Francisco, Cal.	General	7,800		
Heinrich Arp	21	22.20	22	10.50	22	17.54	22	19.00	German	Colombian Mar. Co.	237.0	37.0	12.10	New York, N. Y.	Buenaventura, Col.	General	352	1,718	1,167
Nitokris	19	18.40	22	12.10	22	19.34	22	20.48	German	Hamburg-AmericanLine	410.0	51.0	23.10	Hamburg,Germany	Valparaiso, Chile	General	3,107	6,652	4,704
New Jersey [1]	22	10.30	22	13.05	22	20.15	22	21.30	American	The Texas S. S. Co.	416.8	56.1	19.0	Wilmington, N. C.	Los Angeles, Calif.	Ballast		7,130	5,249
Cali	20	16.45	22	14.40	22	21.39	22	23.00	German	Roland Line	216.5	32.0	12.8	Cristobal, C. Z	Buenaventura, Col.	General	314	1,105	698
Montanan	22	14.30	22	14.45	22	21.00	22	22.18	American	Amer.-Hawaiian Line	404.0	53.0	18.6	Boston, Mass.	Portland, Oreg.	General	3,736	6,756	4,775
Cities Service Empire [1]	22	15.15	22	15.30	22	22.26	22	23.52	American	Cities Service Trans. Co	465.0	60.2	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		8,561	5,997
Motor Sailor			22		22	8.12			American	U. S. Navy				Cristobal, C. Z.	Gatun, C. Z				

[1] Tanker. [10] Yacht. [11] Automobiles and parts.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Willkeno	15	8.00	16	6.08	16	14.00	16	14.00	American	Williams S. S. Line	415.0	55.7	27.2	Tacoma, Wash	New York, N. Y.	Lumber, general	7,975	7,750	5,805
Minden	15	19.30	16	6.46	16	14.30	16	18.20	German	Kosmos Line	360.7	51.0	13.6	Champerico, Guat	Bremen, Germany	Ballast		4,822	3,272
Northmoor [12]	16	00.30	16	7.45	16	15.15	17	11.10	British	Moor Line, Ltd	375.0	52.6	25.0	Portland, Oreg.	United Kingdom	Wheat	7,400	6,051	4,612
Izrada	16	00.10	16	8.41	16	17.30	16	21.15	Yugoslav	Yugoslav Lloyd	360.0	50.3	21.6	Cruz Grande, Chile	Baltimore, Md.	Iron ore	6,100	4,493	3,406
Parthenia	16	8.45	16	9.36	16	16.45	16	23.55	British	Donaldson Bros.	400.0	51.9	24.4	Vancouver, B. C.	Glasgow, Scotland	General	6,049	5,831	4,341
Lisbon Maru	15	21.15	16	10.38	16	17.45	16	21.30	Japanese	Nippon Yusen Kaisha	445.0	58.0	23.6	Manila, P. I.	New York, N. Y.	(13)	8,636	8,015	5,849
Felix Taussig	16	5.50	16	11.40	16	18.40	16	18.40	American	Norton, Lilly & Co.	395.0	55.0	28.0	Tacoma, Wash	Avonmouth, Eng.	General	7,602	7,056	4,964
Clan MacGillivray	16	12.20	16	13.14	16	20.40	16	23.20	British	Cayzer, Irvine & Co.	430.6	53.6	25.6	Pagoumene, Soc. Is.	United Kingdom	(14)	7,000	6,922	4,857
Modemi	16	12.05	16	14.12	16	22.15	17	1.20	Norwegian	Iver Christensen.	371.1	52.1	24.8	Cruz Grande, Chile	Baltimore, Md.	Iron ore	7,200	5,007	3,702
Empire Arrow [1]	16	14.10	16	14.51	16	22.40	16	22.40	American	Standard Transp. Co.	468.3	62.7	28.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,080	9,841	6,946
Santa Barbara [12]	16	10.40	17	6.11	17	13.20	17	18.25	American	Grace Line	466.0	64.0	26.0	Talcahuano, Chile	New York, N. Y.	(15)	5,852	10,687	6,633

[1] Tanker. [12] Motor ship. [13] Sugar, coconut, and general. [14] Copper and chrome ore. [15] Copper, nitrates and general.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port. Day.	Arrived at port. Hour.	Entered Canal. Day.	Entered Canal. Hour.	Completed transit. Day.	Completed transit. Hour.	Cleared for sea. Day.	Cleared for sea. Hour.	Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo. Nature.	Cargo. Tons.	Panama Canal tonnage. Gross.	Panama Canal tonnage. Net.
Sun [1] [16]	16	15.30	17	6 47	17	14.40	17	14.40	American	Sun Oil Co	480 6	66.0	29.0	Los Angeles, Calif.	Chester, Pa.	Gasoline	13,669	9,620	6,476
W. L. Steed [1]	16	15.35	17	7.14	17	15 50	17	15 50	American	Huasteca Petroleum Co.	416 8	56.1	27.0	Los Angeles, Calif.	Baltimore, Md	Gasoline	9,000	6,751	4,795
Cid	17	3.15	17	7.25	17	16 20	18	1.40	British	Pacific Steam Nav. Co	264.8	41 2	17.0	Pimental, Peru	New York, N. Y.	General	1,450	2,746	1,626
Peru [16]	17	9.35	17	11.02	17	17.50	17	20.55	Danish	East Asiatic Co	425.3	55 2	23.0	Vancouver, B. C.	Hamburg, Germany	([21])	9,261	7,407	5,660
Cambrai [17]	14	20.10	17	12.13	17	18.30	19	11.05	American	U. S. Army	448 0	58 9	25.1	Balboa, C. Z	New York, N. Y.				
Memphis [18]	15	6.24	18	6.11	18	13.00	18	16.50	American	U. S. Navy	555 0	55.0	18.0	San Diego, Calif.	Hampton Rds., Va.				7,500
Karamea [16]	17	12.20	18	6.35	18	14.18	18	14.18	British	Shaw, Savill & Albion.	483 0	64.0	23 0	Dunedin, N. Z	London, England	Frozen, general	4,725	11,729	8,373
Milwaukee [18]	15	7 02	18	7.16	18	15.27	18	16.50	American	U. S. Navy	555.0	55 0	18 0	San Diego, Calif.	Hampton Rds., Va.				7,500
Surico	16	7.45	18	7.35	18	16.05	18	16 05	American	Transmarine Lines.	324 0	46 2	22 4	Gray's Har., Wash.	Port Newark, N. J.	Lumber	3,772	3,981	2,628
Acajulta	18	1.00	18	7.42	18	16.05			British	Pacific Steam Nav. Co	215 7	33 5	12 0	Champerico, Guat	Cristobal, C. Z	Coffee, wood, etc.	339	1,273	706
Trenton [18]	15	6.49	18	8.13	18	16.50	18	16.50	American	U. S. Navy	555 0	55.0	18.0	San Diego, Calif.	Hampton Rds., Va.				7,500
Uribe	18	1.30	18	9.01	18	17.25			Colombian	Colombian Mar. Co.	227 4	31 7	12 0	Buenaventura, Col.	Cristobal, C. Z	Coffee, general	476	1,154	663
Californian [16]	18	9.35	18	10.37	18	18.10	18	18.10	American	Amer.-Hawaiian Line	445 0	59 8	24.0	Portland, Oreg	Boston, Mass	General	7,530	8,567	6,020
Lebore	18	3.00	18	13.47	19	13.55	19	13.55	American	Ore S. S. Corp	550 0	72 2	34.6	Gruz Crande, Chile	New York, N. Y.	Iron ore	20,000	14,325	4,635
Katrina Luckenbach	18	16.30	18	17.26	19	12.10	19	12.10	American	Luckenbach Line	446.0	56 1	26 0	Portland, Oreg	Boston, Mass	General	5,111	8,508	6,179
Rotorua	18	14.12	19	6.18	19	14.55	19	14.55	British	N. Z. Shipping Co	526 0	61 4	23.0	Wellington, N. Z	London, England	Frozen, general	5,094	12,646	9,439
Pacific President [16]	18	20.45	19	7.06	19	15.55	19	15.55	British	Furness, Withy & Co	450 0	60.5	27.9	Vancouver, B. C.	London, England	General	8,650	10,086	7,226
S-20 [19]			19	7.25	19	16.20			American	U. S. Navy	231 0	21 0		Balboa, C. Z	Cristobal, C. Z				
Buchaness	19	11.30	19	12.10	19	20.07	19	22 00	British	Sir W. R. Smith & Sons	401 6	54.3	25.0	Chemainus, B. C	Garston, England	Lumber	7,358	6,656	4,954
Juanita [20]	19	6.00	19	11.58	19	21.15	19	21.15	Panama	Panama Corporation.	26 5	8.5		Panama, R. P.	Colon, R. P.	Corrugated iron	300 lbs		
Eastern Knight	19	12.45	19	13.42	19	21.12	19	21.12	American	Quaker Line	427 0	56.0	26 9	Portland, Oreg	Philadelphia, Pa.	Lumber, copper	8,319	7,643	5,657
Kenowis [17]	18	15.18	19	14.53	19	22.05	23	9 35	American	U. S. Army	390.0	54.2	20 6	Balboa, C. Z	Mindi, C. Z	Army general			
Argun Maru	19	7 40	19	15 37	19	23 38	20	15.25	Japanese	Osaka Shosen Kaisha	415.0	55 6	19.0	Hong Kong, China	New York, N. Y.	General	2,979	7,273	5,294
Archer	19	14.55	19	16 32	20	11.25	20	11.25	American	Roosevelt S. S. Co., S. B.	440 0	56 0	28.0	Manila, P. I	New York, N. Y.	General	10,116	8,315	6,100
Buffalo Bridge	19	16 40	20	7.06	20	14.18	20	15.25	American	Nelson S. S. Co	324 0	46.2	23 0	San Francisco, Cal.	Baltimore, Md	Lumber, general	3,800	3,984	2,630
Heluan	20	00.05	20	8.06	20	16.07	20	23.15	German	Hamburg-AmericanLine	441 0	52 8	26 3	Magallanes, Chile.	Hamburg, Germany	General	7,635	7,621	5,513
Cali	20	8.45	20	9.48	20	16.45	22	14.40	German	Roland Line	216.5	33.9	13 6	Guayaquil, Ecuad'r	Cristobal, C. Z	Coffee, cacao	763	1,105	698
St. Therese	20	11.45	20	12.39	20	19.30	20	19.30	Norwegian	United Fruit Co	233.1	44 4	12 7	Pt. Armuelles, R. P.	New Orleans, La	Ballast		2,629	1,716
Texan	20	13.30	20	14.10	20	20.40	20	20.40	American	Amer.-Hawaiian Line	471 0	57.2	25 6	Seattle, Wash	Boston, Mass	General	6,874	9,154	6,966
S-13 [19]			21	6.20	21	12.50			American	U. S. Navy	231 0	31 0		Balboa, C. Z	Cristobal, C. Z				
Algonquin [1]	20	19.00	21	6.38	21	14.12	21	14.12	American	Standard Transp. Co	435.0	56 0	27.7	Los Angeles, Calif.	Bayonne, N. J	Gasoline	8,680	7,602	5,337
Massmar	21	1.00	21	7.18	21	14.50	21	14.50	American	Calmar S. S. Co	385 0	51.2	26 6	Gray's Har., Wash.	Philadelphia, Pa.	Lumber	6,000	6,242	4,471
Caldas [16]	20	19.45	21	6.54	21	14.20			Colombian	National Navigation Co.	116 0	21.1	10 0	Buenaventura, Col.	Cristobal, C. Z	Coffee	244	211	124
Sildra [1] [16]	21	7.35	21	8.38	21	16.00	21	18.00	Norwegian	Anglo-Saxon Pet. Co.	455 0	56 6	26 4	Los Angeles, Calif	Curacao, D. W. I.	Gasoline	9,200	7,583	5,071
San Francisco [16]	21	2.00	21	8.46	21	15.45	22	00.10	German	Hamburg-AmericanLine	432.3	59.1	24.6	Vancouver, B. C.	Europe	General	6,202	8,454	5,344
Harvester [1]	21	9.10	21	10.06	21	17.32	21	20.37	American	The Texas Co	416.8	56.1	27.0	Wilmington, Calif.	Baltimore, Md	Gasoline	8,774	6,977	5,183
Canadian Ranger	21	9.15	21	10.39	21	18.30	21	22 06	British	Can. Nat. Steamships	399.8	52.3	23.4	Vancouver, B. C.	Montreal, Canada	Lumber	5,380	5,879	4,121

[1] Tanker. [16] Motor ship. [17] U. S. Army transport. [18] Cruiser. [19] Submarine. [20] Launch. [21] Wheat, lumber, and general.

San Jose	21	9.20	21	10.50	21	18.45	22	14.35	American	United Fruit Co	330.0	44.6	17.0	San Francisco, Cal.	Port Limon, C. R.	Coffee, general	362	3,675	2,359
Lena Luckenbach	21	11.15	21	12.00	21	19.12	21	19.12	American	Luckenbach Line	425.0	53.8	26.8	Los Angeles, Calif.	New Orleans, La.	General	5,100	7,217	5,295
Queen Eleanor	13	12.45	21	14.42	21	22.40	22	00.40	British	Dupont de Nemours	400.3	52.3	24.8	Iquique, Chile	New York, N. Y.	Nitrates	7,850	5,708	4,054
Nikola Mihanovic	21	14.30	21	15.39	22	9.38	23	4.55	Yugoslav	Yugoslav Lloyd	400.6	52.3	25.0	Iquique, Chile	Alexandria, Egypt	Nitrates	7,575	5,826	3,969
Rendal	21	17.10	21	18.20	22	15.05	22	17.00	Norwegian	Ragnar Holtzau	250.9	43.1	19.0	Pescadores Is., Peru	London, England	Guano	3,050		
Mallard [22]			22	6.00	22	14.20			American	U. S. Navy	188.0	31.0		Balboa, C. Z.	Cristobal, C. Z.	([23])			
Oljaren [1 16]	21	19.30	22	6.39	22	15.28	22	17.10	Swedish	Caucasian Oil Co.	399.7	54.9	24.0	Los Angeles, Calif.	Spezia, Italy	Gasoline	7,068		
Hartside	21	21.40	22	7.09	22	17.05	22	18.35	British	J. J. Moore & Co.	363.8	50.5	20.0	Nanoose Bay, B. C.	New York, N. Y.	Lumber	5,078	4,277	2,988
La Paz [16]	22	00.20	22	7.40	22	18.35	23	12.10	British	Pacific Steam Nav. Co.	406.3	54.2	27.0	Corral, Chile	Hull, England	([24])	7,383	7,216	4,912
Indiana	22	4.20	22	8.27	22	19.10	24	12.35	French	French Line	417.8	56.0	25.0	Vancouver, B. C.	Le Havre, France	General	7,716	7,157	4,934
Herman Falk [1 16]	22	8.25	22	9.19	22	19.30	22	19.30	American	Oil Transp. Co.	431.0	59.2	26.3	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,539	7,862	5,049
Francis E. Powell [1]	22	8.45	22	9.47	22	20.10	22	20.10	American	Atlantic Refining Co.	431.0	59.2	26.9	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,464	7,860	5,101

[1] Tanker. [22] Tender. [23] Towing raft. [24] Oats, barley, copper, nitrates, and cotton.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
June 16	Toloa	United Fruit Co	Port Limon, Costa Rica.
June 17	Coppename	United Fruit Co	Puerto Colombia.
June 17	Calamares	United Fruit Co	New York via Habana.
June 17	No. 9688 [25]	Pan-American Airways	Managua via wayports.
June 18	No. 9776 [25]	Pan-American Airways	Buenaventura, Colombia.
June 18	No. 8966 (Peru) [25]	E. M. Pinillos	San Jose, Costa Rica.
June 18	No. 5630 [25]	United Fruit Co	Progresso.
June 18	Annetta I. [26]	A. Tagarapulos	Colon, R. P.
June 19	Inapaquina [26]	United Fruit Co	Colon, R. P.
June 19	Metapan	United Fruit Co	New York via Kingston
June 19	Ancon	Panama R. R. S. S. Line	New York via Haiti.
June 19	JuanSebastianElcano	Spanish Line	Barcelona via wayports.
June 19	Colombia No. 28 [25]	Scadta Airplane Co.	Barranquilla, Colombia.
June 20	Suriname	United Fruit Co	New Orleans, La.
June 20	No. 9664 [25]	Pan-American Airways	Managua via wayports.
June 21	Atlantida	Standard Fruit & S. S. Co.	New Orleans via Habana.
June 21	Coppename	United Fruit Co.	Bocas, R. P.
June 21	Swiftarrow	C. D. Mallory & Co.	Curacao, D. W. I.
June 21	Macabi	United Fruit Co	Puerto Colombia.
June 21	Mercian	Leyland S. S. Line	Savanilla.
June 21	Anachucuna [26]	United Fruit Co	Colon, R. P.
June 22	William M. [27]	G. I. Bryan	Colon, R. P.
June 22	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
June 22	Ariguani	Elders & Fyffes, Ltd	Avonmouth via wayports
June 22	Cartago	United Fruit Co	New Orleans via Habana.
June 22	No. 9688 [25]	Pan-American Airways	Managua, Nicaragua.

* DEPARTURES.

Date.	Vessel.	Line.	For—
June 16	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
June 16	Mayari	United Fruit Co	New York via Kingston.
June 16	Atlantian	Leyland S. S. Line	Colombian ports.
June 16	Orinoco	Hamburg-American Line	Hamburg via wayports.
June 16	Toloa	United Fruit Co	New York via Habana.
June 16	Camden	United Fruit Co	Santa Marta, Colombia.
June 17	Heredia	United Fruit Co	New Orleans via wayp'ts.
June 17	No. 9776 [25]	Pan-American Airways	Buenaventura, Colombia.
June 17	Coppename	United Fruit Co	Bocas, R. P.
June 18	No. 9664 [25]	Pan-American Airways	Managua via David.
June 19	Annetta I. [26]	A. Tagarapulos	Colon, R. P.
June 19	Inapaquina [26]	United Fruit Co	Colon, R. P.
June 19	Calamares	United Fruit Co	Port Limon, Costa Rica.
June 20	No. 9688 [25]	Pan-American Airways	Managua, Nicaragua.
June 20	Colombia No. 28 [25]	Scadta Airplane Co.	Barranquilla, Colombia.
June 20	Metapan	United Fruit Co	New York via wayports.
June 21	No. 9776 [25]	Pan-American Airways	Maracay and wayports.
June 21	No. 8044 [25]	Pan-American Airways	Guayaquil and wayports.
June 21	Suriname	United Fruit Co	Port Limon and Bocas.
June 21	Coppename	United Fruit Co	New Orleans, La.
June 21	No. 5630 [25]	United Fruit Co	David, R. P.
June 22	William M. [27]	G. I. Bryan	Bluefields, Nicaragua.
June 22	Macabi	United Fruit Co	New York via wayports.
June 22	No. 9685 [25]	Pan-American Airways	Managua via David.
June 22	No. 8966 (Peru) [25]	E. M. Pinillos	Lima via wayports.
June 22	Atlantida	Standard Fruit & S. S. Co.	New Orleans via wayp'ts.
June 22	Ariguani	Elders & Fyffes, Ltd	Kingston, Jamaica.

[25] Air mail carrier. [26] Motor boat. [27] Schooner. * Other than ships passing through the Canal.

(Continued on page 678, column 2.)

United States Intercoastal Traffic by Commodities for May, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for May, 1929, and the totals for May, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Agricultural implements	493	25	518
Alfalfa meal	.....	200	200
Ammonia	31	.....	31
Asbestos	212	.....	212
Asphalt	86	144	230
Automobiles	1,581	158	1,739
Automobile accessories	213	9	222
Barley	106	26	132
Beans	29	2,307	2,336
Borax	277	1,477	1,754
Bricks	654	.....	654
Burlap	.....	29	29
Calcium carbide	140	.....	140
Camphor	.....	78	78
Canned:			
Fish	527	2,620	3,147
Fruit	1,024	17,598	18,622
Meat	42	714	756
Milk	.....	646	646
Soup	1,340	.....	1,340
Vegetables	550	4,132	4,682
Miscellaneous	3,180	1,030	4,210
Celite filtercel	.....	100	100
Cement	430	.....	430
Charcoal	99	59	158
Chemicals	1,534	64	1,598
China and fire clay	186	.....	186
Cocoa	246	.....	246
Coconuts	.....	144	144
Coffee	363	290	653
Coke	889	.....	889
Cold storage:			
Cheese	.....	40	40
Eggs	.....	191	191
Lard	829	.....	829
Other	181	200	381
Confectionery	1,032	.....	1,032
Cork	411	.....	411
Cotton	86	1,472	1,558
Cyanide	366	.....	366
Drugs	529	.....	529
Dyewoods	10	20	30
Earthenware	77	208	285
Explosives	139	.....	139
Flour	208	5,478	5,686
Fruit:			
Dried	.....	3,023	3,023
Fresh	.....	40	40
Fullers earth	50	.....	50
Furniture	260	.....	260
General	58,325	17,119	75,444
Glass and glassware	2,113	54	2,167
Glue	60	.....	60
Granite	25	.....	25
Guano	5	.....	5
Hair	.....	11	11
Hardwoods	348	2,447	2,795
Hay	.....	42	42
Hemp	40	1,246	1,286
Honey	.....	35	35
Infusorial earth	.....	30	30
Ink	15	.....	15
Jute	65	.....	65
Leather	.....	100	100
Lime	.....	25	25
Linoleum	928	50	978
Liquors	20	.....	20
Lumber	1,470	228,374	229,844

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Manufactured goods:			
Iron and steel	127,057	404	127,461
Machinery	6,530	356	6,886
Railroad material	811	.....	811
Tinplate	14,651	.....	14,651
Textiles	4,827	.....	4,827
Miscellaneous	12,450	1,395	13,845
Matches	273	.....	273
Metals:			
Copper	.....	2,954	2,954
Iron	4,197	.....	4,197
Lead	25	1,799	1,824
Scrap	75	416	491
Tin	.....	58	58
Zinc	50	540	590
Other	50	18	68
Milk, powdered	60	301	361
Molasses	215	.....	215
Musical instruments	32	.....	32
Oils:			
Cottonseed	508	.....	508
Crude	.....	13,700	13,700
Gasoline, benzine, naphtha	.....	201,442	201,442
Linseed	50	.....	50
Lubricating and greases	4,973	289	5,262
Olive	33	.....	33
Wood	.....	85	85
Other	116	184	300
Ores:			
Iron	494	.....	494
Magnesite	.....	1,847	1,847
Other	29	.....	29
Paint	472	32	504
Paper	5,906	2,711	8,617
Paper pulp	.....	5,779	5,779
Peanuts	198	246	444
Phosphates	135	.....	135
Porcelain	72	582	654
Potash	40	.....	40
Rags	28	289	317
Rice	1,013	.....	1,013
Rope	156	.....	156
Rosin	879	.....	879
Rubber:			
Manufactured	2,115	130	2,245
Raw	178	50	228
Scrap	.....	5	5
Salt	201	.....	201
Sand	28	.....	28
Seeds:			
Hemp	.....	44	44
Other	.....	567	567
Shells	2,754	.....	2,754
Silk	.....	165	165
Skins and hides	36	2,101	2,137
Slag	800	.....	800
Slate	1,032	.....	1,032
Soap	3,143	473	3,616
Soda	672	.....	672
Soda ash	1,756	.....	1,756
Soda, bicarbonate	176	.....	176
Soda, caustic	317	.....	317
Starch	20	.....	20
Sugar	44	11,545	11,589
Sulphur	8,596	.....	8,596
Syrup	186	.....	186
Talc	14	83	97
Tallow	.....	290	290
Tar	119	.....	119
Tartar	26	.....	26
Tea	.....	1	1
Tobacco	3,009	101	3,110
Toys	150	4	154
Turpentine	185	.....	185
Waste	262	139	401
Wax	77	96	173
Wheat	40	115	155
Wine	.....	60	60
Wool	25	2,741	2,766
Zinc oxide	65	.....	65
Totals, May, 1929	294,255	546,192	840,447
Totals, May, 1928	250,734	598,179	848,913
Totals, May, 1927	276,139	638,236	914,375

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.25 per barrel at Balboa and Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessel furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessels to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton..... 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage in such cases, as provided in Paragraph 4, Item 3, of the tariff, and for handling lines in accordance with Item 4 of the tariff.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

MOVEMENTS OF OCEAN VESSELS.—Continued from page 675.

PORT OF BALBOA

* ARRIVALS.

Date.	Vessel.	Line.	From—
June 16	Emma H. Coppage	Texas S. S. Co	Los Angeles, Calif.
June 20	Sambu [28]	Hans Elliot	Bayano River, R. P.
June 20	Dos Hermanos [28]	A. Valdez	Bayano River, R. P.
June 20	A. B. de Obarrio [28]	Pacific Fruit Co	Bayano River, R. P.

* DEPARTURES.

Date.	Vessel.	Line.	For—
June 17	Emma H. Coppage	Texas S. S. Co	Los Angeles, Calif.
June 20	Sambu	Hans Elliot	Panama Bay, R. P.
June 20	Dos Hermanos [28]	A. Valdez	Panama Bay, R. P.
June 20	A. B. de Obarrio [28]	Pacific Fruit Co	Panama Bay, R. P.

[28] Motor schooner.

* Other than ships passing through the Canal.

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., July 3, 1929. No. 48.

Canal Traffic During Fiscal Year 1929—Record Tolls Collection.

The total number of commercial vessels transiting the Canal during the fiscal year ended June 30, 1929, aggregated 6,413, and the total tolls collection was $27,127,376.91. Tolls collected during the fiscal year 1929 exceeded the previous high mark for a year's tolls collection (fiscal year 1928 with $26,944,499.77) by almost $183,000.00. The number of commercial transits for 1929 fell short by 43 of the previous record of 6,456 established during the fiscal year 1928. In addition to the new high record for a year's tolls collection, new high figures for tons of cargo and ship tonnage were established during the year, although the exact figures will not be known until later.

The daily average number of commercial transits during the year was 17.57, as compared with 17.63 for the fiscal year 1928. The daily average tolls collection amounted to $74,321.58, as compared with $73,618.85 for the previous fiscal year.

In the following tabulation, the number of commercial transits and the amount of tolls collected are shown for the fiscal year 1929, with the daily averages of transits and tolls, together with the totals for the fiscal years 1928 and 1927:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
July	509	$2,109,083.19	16.41	$68,034.94
August	526	2,199,069.31	16.97	70,937.72
September	487	2,111,230.56	16.23	70,374.35
October	557	2,274,945.30	17.97	73,385.33
November	527	2,225,937.48	17.57	74,197.91
December	579	2,443,029.39	18.67	78,807.39
Totals, first 6 months	3,185	13,363,295.23	17.31	72,626.60
January, 1929	603	2,502,815.12	19.45	80,735.97
February	522	2,211,961.20	18.64	78,998.62
March	536	2,343,865.55	17.29	75,608.57
April	540	2,281,087.27	18.00	76,036.24
May	524	2,296,546.57	16.90	74,082.15
June	503	2,127,805.97	16.76	70,926.87
Totals, last 6 months	3,228	13,764,081.68	17.82	76,044.65
Totals, fiscal year 1929	6,413	27,127,376.91	17.57	74,321.58
Totals, fiscal year 1928	6,456	26,944,499.77	17.63	73,618.85
Totals, fiscal year 1927	6,475	24,228,830.11	15.00	66,380.36

Canal Traffic in June, 1929.

During the month of June, 1929, 503 commercial vessels and 10 small launches transited the Canal. Tolls on the commercial vessels aggregated $2,127,805.97, and on the launches $45.87, or a total tolls collection of $2,127,851.84.

The daily average number of transits of commercial vessels for the month was 16.76, and the daily average tolls collection $70,926.87. The average amount of tolls paid by each of the commercial transits was $4,230.23, as compared with $4,382.72 for the month of May, 1929.

Traffic for the past month was the lightest since September, 1928, when 487 vessels transited.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, June 29, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Losada [2]	22	13 50	23	6.05	23	13.37	23	19 53	British	Pacific Steam Nav. Co.	405 0	54.2	20 0	Hull, England	Corral, Chile	General	4,440	7,221	4,844
Agwimars [1]	22	19.10	23	6.15	23	14.20	23	15 30	American	International S. S. Co.	429 3	59 0	22.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,596	5,209
El Lobo [1]	22	19.30	23	7 20	23	14 55	23	16.30	British	Atlantic Refining Co	385 2	51 0	18 6	Philadelphia, Pa.	La Libertad, Ecua'r	Ballast		4,851	3,326
Chinese Prince [2]	22	21 15	23	7.50	23	15 08	23	16.30	British	Rio Cape Line	441 6	60 0	22 0	New York, N. Y.	Yokohama, Japan	General	4,683	9,254	6,265
Fernmoor [2]	22	23 45	23	8.40	23	16.06	23	17.25	Norwegian	Fern Line	381 0	53 8	25 0	Galveston, Tex.	Shanghai, China	General	7,183	6,291	4,530
Steelore	22	10.45	23	8.53	23	16.53	23	18 30	American	Ore S. S. Corp.	550.3	72 2	20 2	Baltimore, Md.	Cruz Grande, Chile	Ballast		15,551	4,297
Kenowis [3]	19	22.05	23	9.35	23	17.06	25	16.20	American	U. S. Army	390 0	54.2	20 1	Cristobal, C. Z.	San Francisco, Cal.	Army supplies	2,078		
Nosa King	22	21.20	23	10.25	23	18.05	23	19.45	American	N. O. & S. A. S. S. Co.	324.0	46.2	21 9	New Orleans, La.	Talcahuano, Chile	General	2,610	3,978	2,553
Pacific Cedar	23	10.30	23	11.55	23	18.33	23	20.09	American	Dimon S. S. Corp	399.0	54.0	23.0	New York, N. Y.	Los Angeles, Calif.	General	4,800	6,138	4,354
Steel Exporter	23	5.20	23	11.40	23	19 05	23	20.33	American	Isthmian S. S. Lines	424.2	57.0	27 2	Baltimore, Md.	Shanghai, China	General, steel	8,076	7,611	5,450
Missoula	23	15.10	24	6.15	24	13.20	24	15.45	American	Hammond Lumber Co	362 3	51 2	20 5	San Juan, P. R.	Los Angeles, Calif.	Ballast		4,947	3,374
Ida	23	16.40	24	6.35	24	14.03	24	15.25	Norwegian	Knut Knutsen	266.9	42.2	18 0	Oslo, Norway	San Antonio, Chile	(7)	2,237	2,095	1,407
West Cape	24	2.20	24	6.40	24	14.46	24	16.20	American	Munson, McCor'k Line	409.5	54 2	22 0	New York, N. Y.	Tacoma, Wash	General	5,136	6,566	4,960
Santa Veronica	24	2.30	24	7.15	24	16.15	24	23.45	American	Isthmian S. S. Lines	251.0	44.0	23.0	Baltimore, Md.	Honolulu, T. H.	(8)	2,834	2,823	1,740
Canadian Winner	24	5.40	24	7.35	24	15.09	24	16.50	British	Can. Nat. Steamships	400 0	52.0	17.0	Montreal, Canada	Vancouver, B. C.	General	1,590	5,885	4,073
Challenger [2]	24	5.50	24	8.30	24	16.25	24	21.59	American	Isthmian S. S. Lines	410.0	56.0	30.9	New York, N. Y.	Tacoma, Wash	General	10,770	7,780	5,811
Abron	24	5.30	24	8.50	24	17.30	24	18.44	American	Redwood Line	381.0	52.2	23.0	Mobile, Ala	San Francisco, Cal.	General, sulphur	4,624	5,732	4,131
San Jose	24	6.25	24	8.35	24	17.15	24	18.44	American	United Fruit Co	330 0	44.3	19.6	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	545	3,675	2,359
Cleveland [4]	12	14.40	24	9 40	24	18.21			American	U. S. Navy	292 0	44.0	18.0	Cristobal, C. Z.	Balboa, C. Z.				
Guatemala	22	19.25	24	10.04	24	17.52	25	19.36	American	Panama Mail S. S. Co.	360 0	52.0	21 3	New York, N. Y.	San Francisco, Cal.	General	2,117	5,776	4,081
Calmar	24	6.00	24	11.35	24	18.47	24	20.05	American	Calmar S. S. Corp	384.6	51.2	26.3	Baltimore, Md.	Seattle, Wash	Steel, general	7,765	6,347	4,453
Santa Cecelia	24	4.30	24	12 50	24	19.52	24	21.00	American	Grace Line	408 0	55.0	17.3	New York, N. Y.	Callao, Peru	General, etc.	1,229	6,672	4,905
Romulus [1]	23	14.05	24	13.30	24	20.25	24	21.30	American	West India Oil Co	391.8	51.3	15.9	Baytown, Tex.	Los Angeles, Calif.	Ballast		5,601	3,913
Seminole [1] [3]	24	14.25	24	15.18	24	21 58	25	7.40	British	Anglo-American Oil Co.	424.5	57.0	16.0	Liverpool, England	Los Angeles, Calif.	Ballast			
Tusitala [5]	24	22.05	25	6 40	25	16.32	26	19.45	American	Norton, Lilly & Co.	260.0	39.0	20.1	New York, N. Y.	Honolulu, T. H.	Sulphate amm'ia	2,379	1,892	1,646
Sunbeam [1]	25	6.25	25	7.15	25	14.08	25	16.55	American	Sun Oil Co	429.3	59.2	20.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,709	5,562
Amerikaland [2]	25	7.35	25	8.12	25	15.32	25	20.11	Swedish	Ore S. S. Corp	561.0	72.0	22.0	Baltimore, Md.	Cruz Grande, Chile	Ballast		15,560	4,496
Cherry Branch	25	1.30	25	8.12	25	16.32	25	18.00	British	F. & W. Ritson	400 0	52.0	24.0	Liverpool, England	Valparaiso, Chile	General		4,375	5,403	3,960
Northumberland	25	7.40	25	10.45	25	21.40	26	1.38	British	Federal Steam Nav. Co.	530.0	63.0	31.6	Liverpool, England	New Plym'th, N.Z.	General	10,343	13,268	9,124
Sheafmead	25	11.05	25	11.25	25	20.13	25	21.30	British	Canadian Transp. Co.	380.0	53.6	21.0	Cornerbrook, N. F.	Tacoma, Wash	Paper	4,340	5,750	4,466
Nora [1]	25	9.10	25	13.45	25	22.25	26	4.17	American	Arrow Oil Co	467.6	62.7	30.0	Beaumont, Texas	Iquique, Chile	Fuel oil	12,446	9,918	7,363
Aachen	24	17.50	25	14.45	25	22.40	25	23.53	German	North German Lloyd	431.2	56.0	25.6	Hamburg, Germany	Valparaiso, Chile	General	6,471	7,196	4,956
Willmoto	25	14.40	25	14.55	25	23.10	26	2.41	American	Seekonk Corp	390.0	54.2	24.0	Baltimore, Md.	Honolulu, T. H.	(9)	6,100	6,162	4,433
Impero	25	7.10	25	19.50	26	13.16	26	15.00	Italian	Calisti	458.0	52.6	21.5	Genoa, Italy	Valparaiso, Chile	General		941	4,250	4,849
George W. Barnes [1]	25	15.55	26	6.10	26	14.11	26	15.25	American	Huasteca Petroleum Co.	416.8	56.1	18.6	Baltimore, Md.	Los Angeles, Calif.	Ballast		6,763	4,759
El Panquiaco [6]	26	6.05	26	6.05	26	14.50			Panaman	Panaman Government.	125.0	23.0		Cristobal, C. Z.	Panama, R. P.	Ballast		288	101

[1] Tanker. [2] Motor ship. [3] U. S. Army transport. [4] Cruiser. [5] Sailing ship. [6] Panama Government transport. [7] Paper, cement, and dynamite.
[8] Tin and sulphate ammonia. [9] Fertilizer and cobblings.

Benj. Franklin [4]	25	14.05	26	7.10	26	15.16	....	.....	Norwegian..	Fred Olsen & Co.....	452.0	59.5	19.3	Oslo, Norway.....	Vancouver, B. C..	Cement, general	2,180	9,082	6,140
Bowes Castle..	25	17.47	26	7.10	26	17.04	26	18.30	British.....	Barber S. S. Line.....	418.5	56.1	28.0	New York, N. Y..	Shanghai, China...	General.....	7,591	6,675	4,712
J. L. Luckenbach.....	25	23.05	26	8.25	26	17.16	26	18.30	American...	Luckenbach Line.....	448.9	60.2	22.0	Boston, Mass.....	Seattle, Wash.....	General.....	5,000	9,294	6,861
Barneveld.....	25	12.55	26	9.32	26	17.40	27	00.40	Dutch.....	Royal Neth. S. S. Co..	416.0	58.2	25.7	Hamburg,Germany	Corral, Chile.....	General.....	6,176	7,820	5,980
W. H. Tilford [1]	26	00.10	26	10.50	26	18.00	26	20.00	American...	Standard Shipping Co..	411.6	53.4	18.0	Habana, Cuba...	Los Angeles, Calif.	Ballast.....	.....	6,205	4,325
Alaskan.....	26	5.30	26	11.45	26	18.45	26	20.00	American...	Amer.-Hawaiian Line..	415.0	53.7	20.0	Boston, Mass.....	Seattle, Wash.....	General.....	3,504	7,380	5,339
Oriole.....	26	17.00	26	18.55	27	12.45	27	15.00	American...	Quaker Line.....	410.5	54.2	22.0	Wilmington, Del...	Portland, Oreg...	General.....	4,726	6,755	4,873
Santa Elisa....	26	15.32	27	6.10	27	14.12	27	17.30	American...	Grace Line.....	360.3	52.0	23.3	New York, N. Y..	Talcahuano, Chile.	General.....	1,857	5,957	4,325
Alvarado.....	26	6.05	27	6.05	27	15.54	27	16.35	British.....	Pacific Steam Nav. Co.	303.0	43.0	18.4	New York, N. Y..	Calloa, Peru.....	General.....	1,853	2,844	1,748
Phobos [1] [2]....	26	18.50	27	7.28	27	15.52	27	19.02	Dutch.....	Anglo-Saxon Pet. Co...	440.0	59.4	19.4	Hamburg,Germany	Los Angeles, Calif	Ballast.....	.....	7,935	5,065
Solana [1].....	27	10.55	27	11.15	27	17.43	27	19.03	American...	Tidewater Oil Co.....	419.5	56.5	19.0	New York, N. Y..	San Francisco, Cal.	Ballast.....	.....	7,060	5,025
Petricola [1].....	27	6.05	27	11.50	27	18.41	27	20.04	British.....	Anglo-Saxon Pet. Co...	412.0	53.3	21.7	Montreal, Canada.	Los Angeles, Calif.	Ballast.....	.....	6,319	4,373
Notre Dame de Fourviere.	27	9.45	27	12.25	27	20.12	27	21.18	French.....	French Line.....	427.0	58.3	20.8	Havre, France...	Vancouver, B. C..	General.....	4,684	8.043	5,454
Aragonia.....	26	17.50	27	13.15	27	20.51	27	22.10	German....	Hamburg-AmericanLine	375.0	50.9	22.0	Hamburg,Germany	Champerico, Guat.	General.....	3,670	5,529	3,770
Falsterbo [1] [2]..	27	11.50	27	13.50	27	21.40	27	23.00	Swedish....	The Texas S. S. Co....	349.0	50.0	23.6	Pt. Arthur, Tex...	Fremantle, Aust'lia	([12])	5,914	4,917	3,528
Washington [1]..	27	14.55	27	15.10	27	22.20	28	3.18	American...	The Texas S. S. Co....	425.8	57.0	22.6	Baltimore, Md....	Los Angeles, Calif.	Ballast.....	.....	7,484	5,216
Acajutla.....	18	16.05	28	6.05	28	13.04	28	14.30	British.....	Pacific Steam Nav. Co	215.0	34.0	17.0	Cristobal, C. Z....	Champerico, Guat	General.....	1,138	1,273	706
Tille [10].....	25	23.15	28	6.10	28	16.00	28	17.35	Peru.....	Tille Co.....	150.8	28.2	9.0	Hamburg,Germany	Callao, Peru.....	Ballast.....	.....	480	343
Delaware Sun [1]	27	18.45	28	6.10	28	14.01	28	15.25	American...	Sun Oil Co.....	480.5	66.0	23.0	Chester, Pa.....	Los Angeles, Calif.	Ballast.....	.....	9,402	6,586
President Wilson.....	28	5.00	28	7.15	28	15.04	28	21.58	American...	Dollar Line.....	516.0	72.2	29.0	New York, N. Y..	Round the world..	General.....	5,476	15,286	10,533
Gen. M. H. Sherman....	27	19.40	28	7.25	28	16.54	28	18.15	American...	Arrow Line.....	402.6	53.0	20.6	Jacksonville, Fla..	Los Angeles, Calif.	General.....	3,700	6,575	4,912
Saxonstar.....	27	21.10	28	8.35	28	17.48	28	18.45	British....	American Mail Line...	420.0	54.0	23.0	Newcastle, Engl'd	Los Angeles, Calif.	Ballast.....	.....	7,340	5,453
New York [1]...	27	21.30	28	8.40	28	18.48	28	20.15	American...	The Texas S. S. Co....	416.8	56.0	20.0	Claymont, Del...	Los Angeles, Calif.	Ballast.....	.....	6,807	5,047
Sutorpeo.....	27	22.45	28	9.55	28	18.52	28	20.15	American...	Transmarine Line.....	324.0	46.2	18.10	New York, N. Y..	San Francisco, Cal.	General.....	1,637	3,984	2,612
Mallemak....	28	6.20	28	9.55	28	18.55	28	20.15	American...	Malsah S. S. Co.....	333.8	48.0	18.6	New York, N. Y..	Seattle, Wash	([13])	3,075	4,112	2,846
Standard Arrow [1]....	28	4.00	28	10.05	28	19.31	28	21.05	American...	Standard Transp. Co...	467.6	62.7	20.0	New York, N. Y..	Los Angeles, Calif.	Ballast.....	.....	9,698	6,783
Port Denison...	28	5.50	28	11.43	28	19.59	28	21.58	British.....	Com'lth & Dom. Line..	480.0	60.3	26.5	Newcastle, Eng...	Sydney, Australia.	General.....	3,167	10,795	8,142
Balboa [2].....	28	1.55	28	12.40	28	20.44	29	2.40	Swedish....	Johnson Line.....	427.0	56.0	23.4	Gothenberg, Swed.	San Francisco, Cal.	([11])	6,133	7,480	5,533
S. C. T. Dodd [1]	28	12.28	28	13.45	28	22.12	28	23.22	American...	Standard Oil Co.....	425.0	57.2	19.6	Baltimore, Md....	Los Angeles, Calif.	Ballast.....	.....	7,481	4,975
Lochmonar [2]..	26	17.25	28	14.50	28	22.48	28	23.56	British.....	Royal Mail S. P. Co....	485.0	62.0	24.0	Rotterdam,Holland	Vancouver, B. C..	General, bananas	4,953	10,772	7,581
Caiman [11].....	.....	.....	28	.....	28	18.44	.....	.....	American...	Pete Hulscbosch.....	.....	.....	.....	Cristobal, C. Z....	Balboa, C. Z.....	Ballast.....	.....	6	6
Saale [2].....	28	11.45	29	6.05	29	13.44	29	14.50	German....	North German Lloyd..	470.0	61.0	20.5	Antwerp, Belgium.	Vancouver, B. C.	General	4,318	9,335	6,844
Caldas [2].....	21	14.20	29	6.00	29	14.19	29	18.15	Colombian..	National Navigation Co.	116.0	21.0	8.6	Cristobal, C. Z....	Buenaventura, Col.	General	81	211	124
Emilie L. D....	28	18.35	29	7.05	29	15.42	29	17.05	French.....	Blue Dimond Cement..	401.0	52.9	26.8	Antwerp, Belgium.	Los Angeles, Calif.	Cement, clinkers.	7,694	6,513	4,724
Lumen [1] [2]....	28	18.30	29	7.05	29	15.46	29	19.08	British.....	Anglo-Saxon Pet. Co...	420.0	54.0	22.0	Fall River, Mass..	Los Angeles, Calif.	Ballast.....	.....	6,645	4,843
Skagerrak [1] [2].	28	20.35	29	8.35	29	16.34	29	19.50	German....	Atlantic Tank Redere.	411.0	55.0	17.0	Hamburg,Germany	San Francisco, Cal.	Ballast.....	.....	6,412	4,186
Hanley.....	28	22.40	29	9.45	29	18.45	29	20.00	American...	Norton, Lilly & Co....	440.0	56.0	30.0	New York, N. Y	Portland, Oreg ..	Steel, general	10,458	8,310	6,005
Canadian Victor.....	29	00.10	29	10.55	29	18 18	29	19 59	British.....	Can. Nat. Steamships.	400.0	52.0	20.10	Montreal, Canada.	Adelaide, Australia	General.....	3,331	5,956	4,172
Suraiico.....	29	6.20	29	12.49	29	20.23	29	21.10	American...	Transmarine Line.....	324.0	46.0	21.7	Newark, N. J.....	Seattle, Wash	General.....	3,395	3,984	2,628
Wisconsin Bridge.....	29	11.05	29	12.35	29	20.07	29	21.10	American...	Charles Nelson & Co...	324.0	46.0	22.2	Baltimore, Md....	San Francisco, Cal.	General.....	4,200	.....	.....
City of Rayville [2]..	29	12.20	29	14.10	29	21 12	29	22.20	American...	Roosevelt S. S. Co., S.B.	401.9	54.2	21.0	New York, N. Y..	Adelaide, Australia	General.....	2,261	7,057	5,268
Winton [2].....	29	13.58	29	14.55	29	22.17	30	2.20	British.....	Avenue Shipping Co...	375.2	53.6	21.11	New York, N. Y..	Fremantle, Aust'ia	General.....	5,000	6,295	4,663

[1] Tanker. [10] Auxiliary bark. [11] Launch. [12] Kerosene, lubricating oil, and grease. [13] Sand, steel, and paper. [14] Paper, cement, and pulp

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Pat Doheny [1]	22	18.32	23	6.00	23	14.05	23	14.05	American	Richfield Oil Co	430.2	59.2	27.6	Los Angeles, Calif	New York, N. Y.	Gasoline	9,158	7,978	5,839
Oak Branch	22	21.15	23	6.54	23	15.05	23	15.05	British	F. & W. Ritson	385.0	49.8	22.7	Corral, Chile	Liverpool, England	General	5,780	5,209	4,035
Corinto	23	4.45	23	7.44	23	15.40			American	Panama Mail S. S. Co.	261.1	40.0	15.0	San Francisco, Cal.	Cristobal, C. Z.	General	700	3,252	1,549
Creole Lindo [15]	17	19.18	23	8.19	23	15.25	23	15.25	Venezuelan	Venezuela Gulf Oil Co.	325.0	55.0	10.6	Balboa, C. Z	Maracaibo, Venez.	Ballast		3,497	2,067
W. S. Rheem [1]	23	3.50	23	8.58	23	17.37	23	17.37	American	Standard Oil Co. of Cal.	500.0	68.2	28.6	Los Angeles, Calif	Marcus Hook, Pa.	Gasoline	14,000	11,224	7,895
Durazzo	23	8.00	23	9.40	23	18.15			German	Hamburg-American Line	227.0	34.4	12.3	Guayaquil, Ecuad'r	Cristobal, C. Z.	[18]	383	1,633	1,041
Witram	23	8.30	23	10.48	23	19.30	23	21.45	German	North German Lloyd	449.0	58.0	25.0	Vancouver, B. C.	Hamburg, Germany	General	7,500	7,820	5,661
Nevada [1]	23	11.25	23	12.24	23	20.23	23	20.23	American	The Texas Co	434.8	56.2	28.0	Los Angeles, Calif	Boston, Mass	Crude oil	9,665	7,425	5,202
Dean Emery [1]	23	13.30	23	14.09	23	21.45	23	21.45	American	Pan.-Amer. Pet. & Tr. Co.	429.3	59.2	25.6	Los Angeles, Calif.	Baltimore, Md	Gasoline	9,400	7,709	5,517
Point San Pedro	23	15.30	23	16.06	23	23.00	23	23.00	American	Swayne & Hoyt	324.0	46.2	20.1	San Francisco, Cal.	New Orleans, La.	General	2,858	3,974	2,572
Victorious	23	19.30	24	6.19	24	14.43	24	14.43	American	Tampa Interocean Co.	440.1	56.0	27.0	Manila, P. I.	New Orleans, La.	[19]	10,021	8,328	6,036
Willpolo	24	4.00	24	7.05	24	17.05	24	17.05	American	Williams S. S. Line	386.8	52.2	24.8	Bellingham, Wash.	Baltimore, Md	Lumber	6,613	5,680	4,080
Ebro	24	4.30	24	7.49	24	15.55	24	21.15	British	Pacific Steam Nav. Co.	450.3	57.8	23.0	Talcahuano, Chile	New York, N. Y.	General	3,472	9,291	6,301
Firmore	24	9.30	24	10.32	24	19.28	24	19.28	American	Ore S. S. Corp	449.1	57.2	29.1	Cruz Grande, Chile	Baltimore, Md	Iron ore	11,600	7,487	5,185
Finn [16]	23	8.30	24	11.12	24	19.45	24	23.55	Swedish	Colombia Mar. Co.	273.7	41.0	16.0	Buenaventura, Col.	New York, N. Y.	[20]	1,082	2,472	1,513
Henry S. Grove	24	16.30	25	6.26	25	13.35	25	13.35	American	Nautilus S. S. Co.	404.6	53.9	25.6	Seattle, Wash	Baltimore, Md	Lumber, general	5,251	6,755	4,688
Copeman	24	16.50	25	7.13	25	16.00	25	16.00	British	G. A. Harrison, Hallett, Dixon	259.9	37.4	16.0	Vancouver, B. C.	Cardiff, Wales	Lumber	2,125	1,850	1,230
Hawaiian	24	21.55	25	7.25	25	14.45	25	14.45	American	Amer.-Hawaiian Line	400.6	53.9	24.5	Portland, Oreg	Boston, Mass	General	5,330	6,766	4,767
Vancouver Maru	24	23.30	25	8.14	25	18.35	25	20.00	Japanese	Kokusai Kisen Kaisha	385.0	51.0	25.6	Pulupandan, P. I.	Atlantic coast, U.S.	Sugar	7,458	5,919	4,389
Sabotawan	25	00.30	25	8.34	25	18.40	25	18.40	American	Redwood Line, Inc	386.8	52.2	24.0	San Francisco, Cal.	New Orleans, La.	General	6,300	5,708	4,138
Bencleuch	25	8.00	25	9.35	25	19.20	25	23.05	British	W. Thomson & Co.	410.6	54.0	23.5	Vancouver, B. C.	Avonmouth, Eng.	Lumber, wheat	7,752	6,221	4,227
Virgilio [16]	25	5.40	25	12.51	25	20.12			Italian	Italian Line	502.7	61.8	23.0	Valparaiso, Chile	Genoa, Italy	General	1,027	12,941	9,329
Edward Luckenbach.	25	12.20	25	13.23	25	20.40	25	20.40	American	Luckenbach Line	436.6	57.2	29.0	Portland, Oreg	Boston, Mass	General	6,973	8,543	6,427
E. J. Hooper [17]			25		25				American	E. J. Hooper				Balboa, C. Z.	Gatun Lake, C. Z.				
Pacific [17]			25		25				American	E. J. Hooper				Balboa, C. Z.	Gatun Lake, C. Z.				
Tamaroa	26	4.12	26	6.11	26	14.10	27	4.10	British	Shaw, Savill & Albion	500.4	63.3	25.6	Lyttleton, N. Z.	London, England	Frozen, general.	3,433	13,592	9,383
Bodegraven	25	21.25	26	6.39	26	15.25	26	22.10	Dutch	Royal Neth. S. S. Co.	400.6	58.6	25.8	Corral, Chile	Hamburg, Germany	General	8,042	7,384	6,018
Handicap [16]	25	21.50	26	7.14	26	17.25	26	19.00	Norwegian	Bruusgaard Line	415.3	54.7		Seattle, Wash	Antwerp, Belgium	General	7,825	7,296	5,445
Bennevis	25	23.53	26	7.40	26	16.00	26	17.15	British	Ben Line, Ltd.	400.0	52.0	24.9	Portland, Oreg	United Kingdom	Grain	7,387		
Jane Maersk [1 16]	25	17.50	26	8.24	26	16.50	26	17.45	Danish	Anglo-Saxon Pet. Co.	456.8	59.7	26.6	Los Angeles, Calif	Curacao, D. W. I.	Gasoline	9,312	8,102	5,623
Guayaquil	26	3.30	26	8.45	26	16.13			American	Panama R. R. S. S. Line	251.0	43.6	15.6	Guayaquil, Ecuad'r	New York, N. Y.	General	1,042	2,874	1,944
Atlantic Sun [1]	26	9.00	26	9.51	26	17.50	26	17.50	American	Sun Oil Co	429.3	59.2	26.0	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,250	7,568	5,283
Orbita	26	2.30	26	11.10	26	19.10	26	22.50	British	Pacific Steam Nav. Co.	550.3	67.3	28.5	Talcahuano, Chile	Liverpool, England	[21]	4,368		
Santa Cruz	26	11.33	26	12.55	26	20.25	26	23.50	American	Grace Line	384.0	50.2	20.0	Antofagasta, Chile	New York, N. Y.	General	3,012		
Colombia	26	10.45	27	6.14	27	13.10	28	10.05	American	Panama Mail S. S. Co.	380.0	48.7	22.0	San Francisco, Cal.	New York, N. Y.	Coffee, general	1,491	6,015	4,281
San Quirino [1]	26	14.45	27	6.40	27	14.30	27	14.30	British	Anglo-Mexican Pet. Co.	406.9	52.2	25.0	Wilmington, Calif	United Kingdom	Gasoline	7,390	6,156	4,212
Lochgoil [16]	26	16.40	27	7.06	27	17.15	27	23.20	British	Royal Mail S. P. Co.	485.6	62.3	29.8	Vancouver, B. C.	Rotterdam, Holland	Grain, general.	9,497	10,803	7,606

[1] Tanker. [15] South for dry docking only. [16] Motorship. [17] Launch. [18] Coffee, cocoa, and rice. [19] Sugar, copra, and general. [20] Coffee, hides, and general. [21] Ores, copper, and wool.

Sutransco	26	18.00	27	7.47	27	18.25	27	18.25	American	Transmarine Lines	324.0	46.2	23.6	Portland, Oreg	New York, N. Y.	Lumber	3,689	3,984	2,612
Irland [16]	26	18.35	27	8.12	27	19.05	27	19.05	Danish	Danish-French Line	326.0	50.1	21.0	Iloilo, P. I.	Baltimore, Md.	Sugar	5,000	3,820	2,791
Nosa Queen	27	4.45	27	8.16	27	18.42	27	20.30	American	N. O. & S. A. S. S. Co.	324.0	46.2	20.0	Talcahuano, Chile	New Orleans, La.	Nitrates, general	2,876	3,981	2,600
Grandon	27	5.00	27	8.50	27	19.45	28	11.45	German	North German Lloyd	469.0	57.0	24.0	Valparaiso, Chile	Hamburg, Germany	([22])	7,833	7,615	5,496
Arcturus	26	20.40	27	9.14	27	20.20	27	20.20	American	Roosevelt S. S. Co., S.B.	401.4	53.2	26.0	Sydney, Australia	Baltimore, Md.	Ore, general	7,627	7,043	5,167
Saint Andre	27	9.00	27	9.52	27	21.25	28	20.37	French	French Line	397.7	50.3	25.7	Talcahuano, Chile	Le Havre, France	General	6,784	5,859	4,164
Plow City	27	9.15	27	10.21	27	22.05	27	23.50	American	Charles Nelson & Co.	324.0	46.2	22.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	3,840	3,983	2,631
Baralt	27	10.00	27	11.30	27	22.15	...	.....	Dutch	Royal Neth. S. S Co	202.9	33.1	12.0	Guayaquil, Ecuad'r	Cristobal, C. Z.	Cocoa, hides	110	1,183	742
Robin Goodfellow	27	10.30	27	12.04	27	23.15	27	23.15	American	Seas Shipping Co	424.8	55.0	27.0	Tacoma, Wash.	New York, N Y.	([23])	8,140	7,473	5,534
Charles Christenson	27	23.45	28	7.02	28	14.20	28	14.20	American	Arrow Line	409.7	54.2	24.7	Tacoma, Wash.	Baltimore, Md.	Lumber	7,000	6,693	4,915
Limon	28	00.15	28	7.25	28	15.40	29	14.10	American	United Fruit Co.	330.6	44.5	18.6	San Francisco, Cal.	Port Limon, C. R.	Gasoline, general	435	3,684	2,234
Indien [16]	27	5.00	28	9.45	28	17.00	28	17.00	Danish	Canadian Transp. Co.	390.0	53.0	27.2	Vancouver, B. C.	Baltimore, Md.	Lumber, pulp	7,800	6,173	4,418
Cambridge	28	00.25	28	12.38	28	20.45	29	00.40	British	N. Z. Shipping Co.	524.5	65.5	24.0	Pt. Chalmers, N.Z.	Liverpool, England	Frozen, general	5,188	12,485	8,854
Norfolk	28	12.05	28	13.17	28	21.42	29	00.45	British	N. Z. Shipping Co.	520.0	64.2	21.0	Gisborne, N. Z.	London, England	Frozen, general	5,805	12,963	9,291
Phoenix	27	10.10	28	14.25	28	23.00	28	23.00	American	American Tankers Corp.	400.8	54.2	28.4	Talara, Peru	Vallo, Norway	Crude oil	8,379	6,536	4,389
El Ciervo [1]	28	12.15	28	15.18	29	9.05	29	13.03	British	C. T. Bowring & Co.	406.9	52.2	25.2	La Libertad, Ecua.	Philadelphia, Pa.	Crude oil	8,023	6,046	4,326
Svealand [16]	28	11.25	29	6.08	29	14.35	29	14.35	Swedish	Axel, Brostrom & Son.	550.1	72.0	34.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	22,146	15,425	4,421
Induna	28	13.25	29	6.47	29	15.10	29	15.10	British	Wessel, Duval & Co.	401.8	52.7	25.6	Toconilla, Chile	Baltimore, Md.	Nitrates	7,720	5,634	4,172
David McKelvy [1]	28	15.20	29	7.23	29	16.20	29	17.00	American	Tidewater Oil Co.	430.0	59.2	25.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	8,635	7,629	5,325
Gerogios	28	17.10	29	7.35	29	17.35	29	17.35	Greek	S. Livanos & Co.	360.0	51.9	23.5	Iquique, Chile	Alexandria, Egypt	Nitrates	6,900	4,776	3,433
Yankee Arrow [1]	28	21.10	29	8.38	29	19.20	29	19.20	American	Standard Transp. Co.	468.3	62.7	27.2	Los Angeles, Calif.	New York, N. Y.	Gasoline	12,000	9,841	6,946
Nevadan	28	17.30	29	8.48	29	18.40	28	18.40	American	Amer.-Hawaiian Line	460.0	57.8	25.0	Seattle, Wash.	Boston, Mass.	General	6,458	6,829	4,627
Piako	29	00.18	29	9.15	29	19.50	29	19.50	British	N. Z. Shipping Co.	450.0	58.0	22.0	Oamaru, N. Z.	London, England	Frozen, general	3,561	8,459	6,060
Fjorden	29	4.20	29	9.55	29	20.45	29	22.00	Norwegian	S. Brommeland	275.7	40.2	19.0	Santa Island, Peru	Jacksonville, Fla.	Guano	3,000	2,492	1,676
Agwipond [1]	28	14.25	29	10.28	29	21.30	29	21.30	American	Inter. Shipping Corp.	468.3	62.7	29.9	Los Angeles, Calif.	Boston, Mass.	Crude oil	12,684	9,810	6,965
Scottish Castle [1]	29	14.15	29	15.11	30	15.15	30	16.15	British	Tankers, Ltd.	440.8	57.4	27.2	San Francisco, Cal.	Curacao, D. W. I.	Gas oil	9,560	7,532	5,162
Commander McCauley [17]	.....	.....	29	.....	29	.....	.....	.....	American	U. S. Navy	.....	.....	.....	Balboa, C. Z.	Darien, C. Z.	.....	.....	.....	.....

[1] Tanker.

[22] Nitrates, cotton, and general.

[23] Lumber, ore, and pulp.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
June 23	Calamares	United Fruit Co.	Port Limon, Costa Rica.
June 24	No. 8044 [24]	Pan-American Airways.	Guayaquil via wayports.
June 24	No. 9685 [24]	Pan-American Airways.	Managua via David.
June 24	Pastores	United Fruit Co.	New York via Habana
June 24	No. 9776 [24]	Pan-American Airways	Maracay via wayports.
June 24	Guadeloupe	French Line	St. Nazaire via wayports.
June 25	Inapaquina [25]	United Fruit Co.	Colon, R. P.
June 25	Annetta I. [25]	A. Tagarapulos	Colon, R. P.
June 26	Stuyvesant	Royal Neth. S. S. Co.	Amsterdam via wayports

* DEPARTURES.

Date.	Vessel.	Line.	For—
June 23	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
June 23	Swiftarrow	C. D. Mallory & Co.	Curacao, D. W. I.
June 23	Calamares	United Fruit Co.	New York via Habana.
June 23	Juan Sebastian Elcano	Spanish Steamship Line	Barcelona via wayports.
June 23	Ancon	Panama R. R. S. S. Line	New York via Haiti.
June 24	Cartago	United Fruit Co.	New Orleans via wayports.
June 25	Inapaquina [25]	United Fruit Co.	Colon, R. P.
June 25	No. 9688 [24]	Pan-American Airways.	Managua via David.
June 26	Guadeloupe	French Line	Havre via wayports.

[24] Air mail carrier.

[25] Motor boat.

* Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
June 26	Sixaola	United Fruit Co	New York via Kingston.	June 26	Annetta I [28]	A. Tagarapulos	Colon, R. P.
June 26	Novian	Leyland S. S. Line	Liverpool via wayports.	June 26	Pastores	United Fruit Co	Port Limon, Costa Rica.
June 26	Darien [26]	Scadta Airplane Co	Baranquilla, Colombia.	June 26	Stuyvesant	Royal Neth. S. S. Co	Port Limon, Costa Rica.
June 25	Nora B. [27]	H. Blackwood	Colon, R. P.	June 26	Nora B. [27]	H. Blackwood	Bluefields, Nicaragua.
June 27	Grunewald	Hamburg-American Line	Tampico, Mexico.	June 27	Darien [26]	Scadta Airplane Co	Barranquilla, Colombia.
June 27	Saramacca	United Fruit Co	New Orleans, La.	June 27	No. 9685 [26]	Pan-American Airways	Managua via David.
June 27	No. 9688 [26]	Pan-American Airways	Managua via wayports.	June 27	Sixaola	United Fruit Co	New York via wayports.
June 27	Linda S. [27]	A. L. Surgeon	Colon, R. P.	June 27	Novian	Leyland S. S. Line	Port Limon, Costa Rica.
June 27	Inapaquina [28]	United Fruit Co	Colon, R. P.	June 27	Linda S. [27]	A. L. Surgeon	Bluefields, Nicaragua.
June 28	Annetta I. [28]	A. Tagarapulos	Colon, R. P.	June 28	Inapaquina [28]	United Fruit Co	Colon, R. P.
June 28	Suriname	United Fruit Co	Bocas, R. P.	June 28	Annetta I. [28]	A. Tagarapulos	Colon, R. P.
June 28	Amapala	Standard Fruit & S. S. Co	New Orleans via wayports.	June 28	Saramacca	United Fruit Co	Puerto Colombia.
June 28	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	June 28	No. 9766 [26]	Pan-American Airways	Curacao via wayports.
June 29	Stuyvesant	Royal Neth. S. S. Co	Port Limon Costa Rica.	June 28	No. 8044 [26]	Pan-American Airways	Guayaquil via wayports.
June 29	Planter	T. & J. Harrison	Liverpool via wayports.	June 28	Grunewald	Hamburg-American Line	Cartagena, Colombia.
June 29	Manaqui	United Fruit Co	New York via wayports.	June 28	Suriname	United Fruit Co	New Orleans, La
June 29	Parismina	United Fruit Co	New Orleans via Habana.	June 29	No. 9688 [26]	Pan-American Airways	Managua via David.
June 29	No. 9685 [26]	Pan-American Airways	Managua via David.	June 29	Amapala	Standard Fruit & S. S. Co	New Orleans and wayp'ts.
				June 29	Manaqui	United Fruit Co	New York via Kingston.
				June 29	Stuyvesant	Royal Neth. S. S. Co	Amsterdam via wayports.

[26] Air mail carrier. [27] Motor schooner. [28] Motor boat.

PORT OF BALBOA.

June 27	A. B. De Obarrio [29]	Pacific Fruit Co	El Real, R. P.	June 27	A. B. De Obarrio [29]	Pacific Fruit Co	Panama Bay, R. P.
June 28	Dos Hermanos [29]	A. Valdez	Bayano River, R. P	June 28	Dos Hermanos [29]	A. Valdez	Panama Bay, R. P.
June 28	Sambu [29]	Hans Elliot	Bayano River, R. P.	June 28	Sambu [29]	Hans Elliot	Panama Bay, R. P.
June 29	San Luis [29]	Chiriqui Land Co	Puerto Armuelles, R. P.	June 29	San Luis [29]	Chiriqui Land Co	Puerto Armuelles, R. P.

[29] Motor schooner.

* Other than ships passing through the Canal.

New Records Established for Largest Cargo and Lowest Cost of Tolls per Ton of Cargo Through the Canal.

The Swedish motor ship *Svealand*, operated by Axel Brostrom & Son, and chartered by the Ore Steamship Corporation, transited the Canal on June 29, 1929, with a cargo of 22,146 long tons of iron ore, bound from Cruz Grande, Chile, to Baltimore, Maryland.

This is the largest cargo carried through the Canal on any ship to date. The previous record was 22,000 tons, made on October 27, 1922, by the tank steamship *William Rockefeller*, carrying crude oil.

The *Svealand* established also on the above transit a new record for low cost of tolls per ton of cargo. The tolls paid amounted to $4,678.75 or a pro rata cost of $0.2113 per ton of cargo. The previous record of $0.2141 was made by the *Svealand* on May 21, 1929.

The *Svealand* is 550.1 feet long, 72 feet beam, of 15,339 gross and 4,377 net tons, national registered tonnage, and 4,461 net tons, Panama Canal measurement. The draft of the ship at the time of transit on June 29, was 34 feet.

Notice to Mariners.

Manzanillo Bay and Limon Bay.

THE PANAMA CANAL, EXECUTIVE OFFICE
BALBOA HEIGHTS, C. Z., *June 28, 1929.*

No. 555.

Letters and numbers designating various aids to navigation in Manzanillo and Limon Bays have been assigned as follows:

M-1 Front Range Light, Margarita.
M-2 Rear Range Light, Margarita.
E-1 Black Spar, East Breakwater Entrance.
E-2 Red Spar, East Breakwater Entrance.
C-3 Outer Black Spar, Coco Solo Basin.
C-4 Red Spar, Coco Solo Approach, 16-ft. Spot.
C-5 Inner Black Spar, Coco Solo Basin.
C-6 Outer Red Spar, Coco Solo Basin.
C-8 Inner Red Spar, Coco Solo Basin.
E-7 Fixed Green Electric Spar, Ft. De Lesseps Approach.
M-11 Black Spar, Between Pier No. 6 and the Mole.
E-12 Flashing Red Electric Spar (former "P"), at Coaling Station.
F-13 Black Spar, French Canal, opposite Coaling Station.
E-14 Fixed Red Electric Spar (former "Q"), at Coaling Station.
F-15 Black Spar, French Canal, opposite Coaling Station.
E-16 Fixed Red Electric Spar (former "R"), at Coaling Station.
E-17 Fixed White Electric Spar (former "N"), at Coaling Station.
E-18 Fixed Red Electric Spar (former "S"), at Coaling Station.
E-19 Fixed White Electric Spar (former "O"), at Coaling Station.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending June 27, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cambrai	U. S. Government	June 14	June 17	1,377	635
Corinto	Panama Mail S. S. Co	June 23	June 23	11	
Kenowis	U. S. Government	June 23	June 24		65
Guatemala	W. R. Grace & Co	June 24	June 25	54	3
Barneveld	Royal Netherlands S. S. Co	June 26	June 26	55	
Colombia	Panama Mail S. S. Co	June 26	June 27	95	24
Benjamin Franklin	Fred Olsen & Co	June 26	June 27	1,678	
Santa Elisa	Grace Line	June 27	June 27	1	
Indien	Orienta Ved Stradden	June 27	June 28	215	

Directory of The Panama Canal.

Executive Department.

Headquarters, Balboa Heights.

COL. HARRY BURGESS, U. S. A., Governor.
M. B. Stevens, Secretary.
C. A. MCILVAINE, Executive Secretary.
JNO. H. SMITH, Chief Clerk, Executive Office.
GUY JOHANNES, Chief, Police and Fire Division.
C. H. CALHOUN, Chief, Division of Civil Affairs.
BEN M. WILLIAMS, Superintendent, Division of Schools.
E. F. ATTAWAY, General Secretary, Bureau of Clubs and Playgrounds.
C. J. RILEY, District Attorney, Ancon.
N. A. BECKER, Land Agent and Assistant Counsel, Ancon.

Department of Operation and Maintenance.

(Under immediate direction of the Governor as head of the department.)

Headquarters, Balboa Heights.

LIEUT. COL. J. L. SCHLEY, U. S. A., Engineer of Maintenance.
J. G. CLAYBOURN, Superintendent of Dredging, Paraiso.
LEONARD FOOTE, Assistant Superintendent, Dredging Division, Paraiso.
MAJ. RAYMOND A. WHEELER, U. S. A., Assistant Engineer of Maintenance.
A. C. GARLINGTON, Electrical Engineer, Electrical Division.
W. R. HOLLOWAY, Superintendent, Pacific Locks, Pedro Miguel.
E. D. STILLWELL, Superintendent, Gatun Locks, Gatun.
J. J. WALSH, Supervisor, Gatun Dam, Gatun.
E. S. RANDOLPH, Designing Engineer, Madden Dam.
L. W. LEWIS, Office Engineer.
R. Z. KIRKPATRICK, Chief of Surveys, Section of Surveys.
G. W. GREEN, Municipal Engineer, Division of Municipal Engineering.
CAPT. C. H. WOODWARD, U. S. N., Marine Superintendent, Marine Division.
COMMANDER ISAAC C. KIDD, U. S. N., Captain of the Port, Cristobal.
COMMANDER S. A. TAFFINDER, U. S. N., Captain of the Port, Balboa.
BOARD OF LOCAL INSPECTORS, COMMANDER ISAAC C. KIDD, U. S. N., *Chairman*, COMMANDER S. A. TAFFINDER, U. S. N., and LIEUT. PHILIP S. FLINT, U. S. N., members.
John J. Walker, Recorder.
BOARD OF ADMEASURERS, CAPT. C. H. WOODWARD, U. S. N., *Chairman*.
O. MAESSEN, Inspector of Hulls and Boilers.
F. KARIGER, Pilot in Charge, Lighthouse Subdivision, Gatun.
CAPT. ROY W. RYDEN, Naval Constructor, U. S. N., Superintendent of Mechanical Division, Balboa.
H. H. EVANS, Assistant Superintendent, Mechanical Division, Balboa.
LIEUT. WESLEY M. HAGUE, U. S. N., Assistant to the Superintendent, Mechanical Division, Balboa.
W. H. STONE, Production Superintendent, Cristobal Shops, Cristobal.

Supply Department.

Headquarters, Balboa Heights.

ROY R. WATSON, Chief Quartermaster.
J. H. K. HUMPHREY, Assistant Chief Quartermaster.
J. E. HIGGINS, Agronomist, Balboa Heights.
B. C. POOLE, District Quartermaster, Ancon-Balboa, Balboa Heights.
J. M. KING, District Quartermaster, Cristobal-Gatun, Cristobal.
C. PETERS, District Quartermaster, Pedro Miguel.
A. W. GOULET, General Manager, Commissary Division, Cristobal. (P. R. R.)
J. B. FIELDS, Constructing Quartermaster.
E. H. PARMELEE, General Storekeeper, Balboa.
A. P. E. DOYLE, Printer, The Panama Canal Press, Mount Hope.

Accounting Department.
Headquarters, Balboa Heights.

ELWYN GREENE, Auditor, Panama Canal.
WILSON H. KROMER, Assistant Auditor on the Isthmus.
ROBERT W. GLAW, Paymaster.
ALFRED H. MOHR, Collector.
JOHN J. LUCKEY, Chief Accountant.
SAMUEL BARDELSON, Chief Examiner.
H. H. HUDSON, Claim Officer.
M. L. DUFF, Railroad Accountant.

Health Department.
Headquarters, Balboa Heights.

LIEUT. COL. JOSEPH F. SILER, U. S. A., Chief Health Officer.
DR. D. P. CURRY, Assistant Chief Health Officer.
DR. M. F. HARALSON, U. S. P. H. S., Chief Quarantine Officer.
COL. GEORGE M. EKWURZEL, U. S. A., Superintendent, Gorgas Hospital, Ancon.
MAJ. H. P MAKEL, U. S. A., Superintendent, Colon Hospital, Cristobal.
CAPT. C. C. ODOM, U. S. A., Superintendent, Corozal Hospital, Corozal.
DR. HENRY GOLDTHWAITE, Health Officer of Panama City, Ancon.
DR. J. L. BYRD, Health Officer of Cristobal-Colon, Cristobal.
DR. C. A. HEARNE, Quarantine Officer, Cristobal.
DR. J. D. ODOM, Quarantine Officer, Balboa.

Courts.

HON. JAMES J. LENIHAN, District Judge, Ancon.
F. H. SHEIBLEY, Clerk of Court, Ancon.
J. S. CAMPBELL, Senior Assistant Clerk of Court, Cristobal.
JOHN T. BARRETT, Canal Zone Marshal, Ancon.
J. W. BLACKBURN, Magistrate, Balboa.
P. E. MURRAY, Magistrate, Cristobal.

Wage and Complaints Boards.
Balboa Heights.

Wage Board:
MAJ. RAYMOND A. WHEELER, representing The Panama Canal.
H. A. MCCONAUGHEY, representing employees.
Board on Complaints Concerning Working Conditions:
MAJ. RAYMOND A. WHEELER, and Head of Department or Division interested, representing The Panama Canal.
H. A. MCCONAUGHEY and A. M. WRIGHT, representing employees.

The Panama Canal in the United States.
Headquarters, Munitions Building, 19th and "B" Streets, NW., Washington, D. C.

A. L. FLINT, General Purchasing Officer and Chief of Office.
E. E. WEISE, Assistant to the Chief of Office.
E. D. ANDERSON, Chief Clerk, Purchasing Department.
NOBLE MOORE, Assistant Auditor.
W. J. SHERIDAN, Assistant Purchasing Agent, 24 State St., New York, N. Y.
A. S. PERRY, Assistant Purchasing Agent, New Orleans, La.
W. A. E. DOYING, Inspecting Engineer, Washington, D. C.

Panama Railroad Company.
Headquarters, Balboa Heights.

COL. HARRY BURGESS, U. S. A., President.
LIEUT. COL. J. L. SCHLEY, U. S. A., Second Vice President.
S. W. HEALD, Superintendent.
ROBERT BEVERLEY, Assistant to Superintendent.
W. F. FOSTER, Master of Transportation.
M. B. CONNOLLY, Roadmaster.
R. B. WALKER, Receiving and Forwarding Agent, Cristobal.
A. L. PRATHER, Superintendent, Coaling Plants, Cristobal.
C. W. LEE, Commercial Agent.
JOHN O. COLLINS, Counsel, Ancon.

Office in the United States, 24 State Street, New York City.

T. H. Rossbottom, Vice President.
W. R. Pfizer, Assistant to Vice President and Secretary.
V. M. Newton, Treasurer.
W. E. H. Johnston, Acting Auditor.
W. K. B. Potts, Superintending Engineer.
Richard Reid Rogers, General Counsel.
A. E. Paterson, Freight Traffic Manager.
T. S. Sprague, General Freight Agent.
A. M. Gibson, Acting Passenger Agent.
———— ———— Claim Agent.
E. Hatton, Pier Superintendent.
W. J. Sheridan, Commissary Purchasing Agent.
A. S. Perry, Assistant Commissary Purchasing Agent, New Orleans, La.

Directory of Officials of the Panaman Government.

(Revised as of October 20, 1928.)

The Honorable Florencio Harmodio Arosemena, President of the Republic.
Mr. Manuel de Jesus Quijano, Secretary General of the Presidencia.
Mr. Luis Morales H., Private Secretary to the President.
Colonel Roberto Chiari, Aide de Camp to the President.
The Honorable Adriano Robles, Secretary of Government and Justice.
Mr. Enoch Adames V., Subsecretary of Government and Justice.
The Honorable J. D. Arosemena, Secretary of Foreign Relations.
Doctor Ricardo A. Morales, Subsecretary of Foreign Relations.
The Honorable Jeptha B. Duncan, Secretary of Public Instruction.
Mr. Manuel E. Melo, Subsecretary of Public Instruction.
The Honorable T. Gabriel Duque, Secretary of Finance and Treasury.
Mr. Julio Quijano, Subsecretary of Finance and Treasury.
The Honorable Luis F. Clement, Secretary of Agriculture and Public Works.
Mr. C. J. Quintero, Subsecretary of Agriculture and Public Works.
Mr. Carlos Clement, Chief of Materials and Purchases.
Dr. Miguel Angel Grimaldo B., Magistrate, Supreme Court of Justice (President).
Dr. Juan Vasquez V., Magistrate, Supreme Court of Justice (Vice-President).
Dr. Daniel Ballen, Magistrate, Supreme Court of Justice.
Dr. Manuel A. Herrera L., Magistrate, Supreme Court of Justice.
Dr. Erasmo Mendez, Magistrate, Supreme Court of Justice.
Dr. Aristides Arjona, Attorney General of the Nation.
Dr. F. J. de la Ossa, Superior Judge of the Republic.
Dr. Jose Domingo Soto, Executive Judge of the Republic.
Dr. Jose Isaac Fabrega, Prosecuting Attorney of the Superior Court.
Mr. Jose Maria Goytia, Director General of Posts and Telegraphs.
Colonel Ricardo Arango, Commandant, National Police Corps.
Mr. F. H. Baldwin, Fiscal Agent of the Republic.
Mr. Tomás Guardia, Chief Engineer of the Republic.
Gen. Ignacio Quinzada, Director General of Statistics.
Mr. Ezequiel Fernandez J., Registrar General of Civil Affairs.
Mr. Damaso A. Cervera, Registrar General of Property.
Dr. Rafael Neira A., Administrator General of Liquor Tax.
Mr. Enrique Linares, Manager, Banco Nacional de Panama.
The Honorable Archibaldo E. Boyd, Governor of the Province, Panama.
The Honorable Inocencio Galindo, Jr., Governor of the Province of Colon
The Honorable Julio Arosemena, Alcalde of the District, Panama.
The Honorable R. G. de Paredes, Alcalde of the District, Colon.
Mr. Juan A. Guizado, Inspector General, Panama Fire Department.
Mr. Maximino Walker H., Commandant, Colon Fire Department.
Mr. Carlos de Diego, Captain of the Port, Panama.
Mr. Agustin Oses, Captain of the Port, Colon.
Mr. Jose Augustin Arango, Superintendent, Santo Tomás Hospital, Panama.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Merchandise Shipped to Canal Zone for Orders.

The Panama Railroad Company, a New York corporation, of which the stock is now owned by the United States Government, will warehouse "for orders" at its piers and warehouses at Balboa and Cristobal, Canal Zone, nonperishable and nondangerous merchandise, excepting alcoholic liquors. An illustrated pamphlet explaining in detail the arrangement may be had upon application to the Panama Railroad Co., Balboa Heights, C. Z., or 24 State Street, New York City.

On general merchandise the rates are as follows:

(*a*) For handling cargo from ship's side to storage place, the customary inward local charge of $1 per ton.

(*b*) For delivery or reforwarding, customary outward local charge of $1 per ton. (Total of 20 cents per ton more than regular transfer charge.)

(*c*) For storage, 3 cents per ton per day, except that no charge will be made for the first 35 days.

The Panama Railroad Company stores this cargo in four fireproof warehouses, 160 feet by 850 feet, at Cristobal, and in one of the same dimensions at Balboa.

Cargo stored for orders can be reforwarded from the Isthmus—each carrier to collect its proportion of the through rate instead of the local. This means that should a shipment move from New York to the Canal Zone, it will of course pay regular local rate to Balboa or Colon, as the case may be—but should owner wish to reforward to, say, "Guayaquil," he can do so by paying the oncarrier's proportion of the through rate. Upon evidence that the shipment or any part of it moved beyond the Canal Zone, the initial carrier will refund the difference between the through and local rate.

Cargo intended for warehousing at Cristobal or Balboa should be so indicated on the bill of lading, thus "Cristobal for orders" or "Balboa for orders." When so consigned it is not necessary for shippers to secure consular papers at original point of shipment, nor to have bills of lading consulated. Cargo consigned to Canal Zone for orders may be delivered in the Republic of Panama in which case it is necessary to prepare an invoice on which duties can be paid. When evidence of payment of duty is presented to the Canal Zone customs officers they will issue the necessary release and delivery can be taken in the usual way. For those on the Canal Zone who are allowed to import goods duty free the Panama Canal customs release is all that is necessary. For reshipment from storage to a foreign country the shipper takes out bill of lading, consular invoice and sobordo if necessary and cargo is forwarded as regular outward local.

There are no special forms for use in shipping except the warehouseman's order to release the cargo for shipment ("Authority to Deliver Cargo from Storage on Piers)". Shipper takes out his bill of lading and consular invoice and the cargo moves as regular outward local.

Samples of the forms used, "Negotiable Warehouse Receipt," and "Authority to Deliver Cargo from Storage on Piers," are shown in the pamphlet referred to above.

Tolls Charges for Transit of The Panama Canal.

1. Merchant vessels carrying passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity $1.20
2. Vessels in ballast, without passengers or cargo, per net vessel ton (each 100 cubic feet) of actual earning capacity ..... .72
3. Naval vessels, other than transports, colliers, hospital ships, and supply ships, per displacement ton ..... .50
4. Army and navy transports, colliers, hospital ships, and supply ships, the vessel to be measured by the same rules as are employed in determining the net tonnage of merchant vessels, per net ton 1.20
5. Tolls may not exceed the equivalent of $1.25 per net registered ton as determined by United States rules of measurement, nor be less than the equivalent of $0.75 per net registered ton.
6. Vessels returning from Gatun Lake to original point of entry into the Canal, without passing through the locks at the other end, are charged tolls for one passage only.
7. Vessels transiting the Panama Canal from Cristobal to Balboa and return for the sole purpose of having repairs made at the Balboa dry dock and shops will be exempt from payment of tolls, but a charge will be made for pilotage and for handling lines as provided for in the current tariff or supplements thereto.

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, White male	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.; Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Section "B:"	
Ward 5, Male, private rooms, American boys	Daily, 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, American girls	(No visitors permitted in nursery.)
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U	
Ward 14, American, male, G. U	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.00 to 4.00 p. m.
Ward 17, Colored children	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m
Ward 18, White children	Daily, 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p.m.
Ward 20, Colored, female, surgical, obstetrical	
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.

Immediate relatives of seriously ill patients will be admitted at any time by and in the discretion of the attending physician, section nurse, and in her absence, the nurse in charge.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

PUBLISHED WEEKLY.

Subscription rates, domestic, $0.50 per year; foreign, $1.00; address The Panama Canal Record, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Entered as second-class matter February 6, 1918, at the Post Office at Cristobal, C. Z., under the Act of March 3, 1879.

Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., July 10, 1929. No. 49.

New High Records for Year's Commercial Measurement Tonnage, Tolls, and Tons of Cargo Carried.

Supplementing article appearing in THE PANAMA CANAL RECORD of July 4, 1929, in which it was stated that traffic through the Canal during the fiscal year 1929 had broken all previous records for a year's traffic with respect to tolls collected, exact figures are now available and indicate that ship tonnages (with the exception of United States net) and tons of cargo carried also surpass the corresponding totals for these items for the fiscal year 1928, which were the previous high marks in Canal traffic. As was stated in last week's issue, the number of transits were 43 fewer in 1929 than in 1928.

The following tabulation shows the number of transits, tonnage, tolls collected, and tons of cargo carried during the past fiscal year, as compared with the corresponding totals made during the previous record year (fiscal year 1928), and the amount of the increases or decreases:

Commercial traffic.	Fiscal year, 1929.	Fiscal year, 1928.	Increase.
Number of transits	6,413	6,456	[1]43
Tonnage:			
Panama Canal net	29,837,794	29,458,634	379,160
United States net	22,793,847	22,863,796	[1]69,949
Registered gross	37,464,792	37,202,874	261,918
Registered net	22,900,317	22,847,689	52,628
Tolls collected	$27,127,376.91	$26,944,499.77	$182,877.14
Tons of cargo	30,663,006	29,630,709	1,032,297

[1] Indicates a decrease.

French Line to Increase Fleet.

The Compagnie Generale Transatlantique (French Line), operators of a fleet of vessels between Europe and the Pacific coast of North America, is planning to add four carriers to its service. The additional vessels, now under construction, are the motor ships *Washington* and *Oregon*, and the steamers *Wyoming* and *Wisconsin*. All of the vessels will be of 9,500 tons, equipped with refrigerator space, and will have an average sea speed, fully laden, of 13½ knots. Accomodations will be provided for 40 passengers.

The first of the new vessels to appear in Canal waters will be the motor ship *Oregon*, which is due to arrive in the early part of January, 1930.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, July 6, 1920.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Rialto [2]	29	11.07	30	6.05	30	12.39	30	14.20	Italian	Italian Line	430.0	55.0	19.3	Trieste, Italy	Vancouver, B. C.	General	1,990	7,789	6,025
Innesmoor [2]	29	20.05	30	6.22	30	13.52	30	17.30	British	Moor Line, Ltd	375.0	52.6	25.0	Casa Blanca, Mor	Japan	Phosphates	7,500	6,055	4,615
Ruahine	30	5.55	30	7.00	30	14.35	30	23.50	British	N. Z. Shipping Co	480.6	60.3	29.6	London, England	Wellington, N. Z.	General	6,048	11,443	8,417
Lio [1] [2]	30	5.35	30	7.40	30	14.38	30	15.45	American	Standard Transp. Co	431.0	59.0	18.2	Providence, R. I.	Los Angeles, Calif	Ballast		7,846	5,112
Georgian	30	7.10	30	9.10	30	16.15	30	17.25	American	Amer.-Hawaiian Line	435.0	57.6	19.0	Philadelphia, Pa.	San Francisco, Cal.	General	2,755	7,983	5,882
Durazzo	23	18.15	30	10.00	30	16.54	30	18.20	German	Hamburg-American Line	227.5	34.0	13.10	Cristobal, C. Z.	Guayaquil, Ecuad'r	General	571	1,633	1,041
Bolivar [2] [3]	30	21.35	1	6.12	1	14.00			Venezuela	Venezuelan Gulf Oil Co.	305.0	50.0	9.6	Maracaibo, Venez	Balboa, C. Z.	Ballast			
Mayebashi Maru	7-1	2.50	1	7.00	1	15.16	1	16.20	Japanese	Nippon Yusen Kaisha	445.0	58.0	23.11	Baltimore, Md	Kobe, Japan	General	7,561	8,012	5,749
Mallard [4]			1	7.15	1	16.38			American	U. S. Navy	180.0	35.6		Cristobal, C. Z.	Balboa, C. Z.	(9)			
S-15 [5]			1	7.15	1	16.38			American	U. S. Navy	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z.				
Defacto	1	6.15	1	8.25	1	15.29	1	16.25	American	Hammond Line	386.0	52.0	16.0	Philadelphia, Pa.	Seattle, Wash.	General	2,486	5,682	4,086
Limon	1	8.00	1	9.42	1	16.40	1	18.31	American	United Fruit Co	330.6	44.0	19.6	Port Limon, C. R.	San Francisco, Cal.	Coffee, bananas	520	3,684	2,234
Buenaventura	6-30	7.09	1	9.55	1	17.32	1	18.50	American	Panama R. R. S. S. Line	251.0	43.0	18.8	New York, N. Y.	Guayaquil, Ecuad'r	General	776	2,873	1,776
Robin Gray	7-1	9.32	1	11.00	1	18.23	2	1.33	American	Isthmian S. S. Lines	424.8	55.0	27.0	Baltimore, Md.	Vancouver, B. C.	(10)	9,253	7,472	5,542
Castana [1]	1	11.25	1	12.10	1	19.04	1	20.25	American	U. S. Tank Ship Co.	390.0	54.2	17.0	New Orleans, La.	Kahului, Hawaii	Ballast		6,205	4,286
Wind Rush	1	12.20	1	14.25	1	21.45	1	23.00	American	Shepard S. S. Co	409.0	54.2	17.0	Philadelphia, Pa.	Seattle, Wash.	General	1,200	6,558	4,753
Galveston [6]	1	13.55	1	18.50	2	11.38			American	U. S. Navy	292.0	44.0	18.3	Cristobal, C. Z.	Balboa, C. Z.				
Jeanne [7]			1		1	16.54			American	A. M. Butcher				Cristobal, C. Z.	Gatun, C. Z.	Ballast		1	1
Baralt	6-27	22.15	2	6.08	2	14.40	2	16.00	Dutch	Royal Neth. S. S. Co.	200.0	33.1	12.8	Critobal, C. Z.	Buenaventura, Col.	General	192	1,183	742
Dalworth	7-1	16.25	2	6.05	2	15.20	2	16.50	British	Furness, Withy & Co.	400.0	52.0	19.0	Cardenas, Cuba	Seattle, Wash.	Sugar	4,000	6,524	4,686
Franklin K. Lane [1]	1	18.00	2	6.20	2	15.47	2	16.33	American	Huasteca Petroleum Co.	436.0	56.2	20.0	Norfolk, Va.	Los Angeles, Calif.	Ballast		7,405	5,131
Hesperos	1	18.40	2	7.25	2	16.52	2	18.00	Norwegian	Bruusgaard Kios. & Co.	390.0	54.0	24.8	Antwerp, Belgium	Vancouver, B. C.	General	6,846	5,623	4,230
California Standard [1] [2]	2	4.25	2	7.45	2	17.17	3	4.32	American	Standard Oil Co	513.0	68.3	24.0	London, England	Los Angeles, Calif.	Ballast		11,719	8,619
Telena [1] [2]	2	8.10	2	8.35	2	19.00	4	16.00	British	Anglo-Saxon Pet. Co.	457.0	60.0	19.0	Amsterdam, Holla'd	Los Angeles, Calif.	Ballast		7,917	4,849
Rhodopis	1	17.15	2	9.20	2	19.18	2	20.40	German	Hamburg-American Line	435.0	53.0	26.3	Hamburg, Germany	San Antonio, Chile.	General	5,692	7,525	5,154
Solstad [1] [2]	2	3.55	2	10.50	2	20.24	3	00.45	Norwegian	A. F. Klaveness & Co	391.0	53.7	17.6	Hamburg, Germany	Los Angeles, Calif.	Ballast		6,126	4,369
St. Mihiel [8]	1	2.30	2	12.05	2	20.00	2	21.35	American	U. S. Army	436.9	58.0	25.0	New York, N. Y.	San Francisco, Cal.	Army supplies	415		
Scopas [1]	2	7.30	2	13.20	2	20.55	2	22.25	Dutch	Anglo-Saxon Pet. Co.	412.0	53.2	19.0	Hamburg, Germany	Balboa, C. Z.	Ballast		6,296	4,395
West Katan	2	18.45	2	19.15	3	12.40	3	13.45	American	Pacific-Atlantic S. S. Co.	410.5	54.3	21.6	Philadelphia, Pa.	Seattle, Wash.	General	5,254	6,573	4,916
Orita	2	14.30	3	6.10	3	13.46	3	14.40	British	Pacific Steam Nav. Co.	485.0	58 0	25.5	Liverpool, England	Talcahuano, Chile.	General	4,975½	9,936	6,561
Oilpioneer [1] [2]	3	6.30	3	7.25	3	14.58	3	16.00	British	Richfield Oil Co.	410.0	53.5	22 6	Newcastle, Engl'd	Los Angeles, Calif.	Ballast		6,010	4,094
Point Reyes	3	6.40	3	8.20	3	16.55	3	19.30	American	Swayne & Hoyt	324.0	46.2	23.0	New Orleans, La.	Vancouver, B. C.	General	4,388	3,984	2,617
K. I. Luckenbach	3	10.42	3	12.30	3	19.10	4	5.32	American	Luckenbach Line	446.0	56.0	25.0	Boston, Mass.	Seattle, Wash.	General	5,575	8,552	6,236
Dunrobin	3	4.15	3	12.20	3	20.06	3	21.55	British	Andrew Weir & Co.	404.9	53.0	25.6	Santiago, Cuba	Auckland, N. Z.	Sugar	7,454	5,651	4,076

[1] Tanker. [2] Motor ship. [3] South for dry docking only. [4] Mine sweeper. [5] Submarine. [6] Cruiser. [7] Launch. [8] U. S. Army transport. [9] Towing submarine *S-15*. [10] Steel, tinplate, and general.

Aconcagua	3	8.35	3	13.35	3	20.40	3	21.55	Chilean	Chilean Line	422.8	56.2	25.8	New York, N. Y.	Valparaiso, Chile	General	2,661	7,764	4,705
Corinto	6-23	15.40	3	13.35	3	21.50	4	00.30	American	Panama Mail S. S. Co.	261.0	40.0	18.1	Cristobal, C. Z.	San Francisco, Cal.	General	2,250	2,352	1,549
Mexican	3	13.18	3	14.05	3	21.09	3	22.27	American	Amer.-Hawaiian Line	472.3	57.2	21.0	Boston, Mass	Tacoma, Wash	General	5,080	9,258	6,944
Mombassa	3	12.05	3	14.55	3	22.16	3	23.45	British	ArdmoreS.S. & CoalCo.	385.0	50.1	26.0	New York, N. Y.	San Antonio, Chile.	General	2,918	4,957	3,638
Willzipo	3	13.25	3	14.55	3	22.27	3	23.45	American	Williams S. S. Line	415.0	56.0	24.0	Baltimore, Md.	Seattle, Wash.	General	7,000	7,731	5,805
Mataroa	4	3.25	4	6.20	4	12.47	5	1.35	British	Shaw, Savill & Albion.	500.4	63.0	28.6	London, England	Bluff, N. Z.	General	5,500	13,590	9,233
Pacific Reliance [2]	2	6.52	4	6.10	4	13.57	4	15.15	British	Furness, Withy & Co.	435.0	60.1	18.10	Glasgow-England	Vancouver, B. C.	General, bananas	1,529	9,644	6,967
British Chivalry [1]	3	16.35	4	7.20	4	15.18	4	16.40	British	British Tankers, Ltd.	440.8	57.0	18.6	Falmouth, Engl'd	Los Angeles, Calif	Ballast		7,610	5,246
Mirrabooka [2]	3	20.38	4	7.25	4	15.55	4	19.40	Swedish	Transpacifico S. S. Co.	448.0	57.0	22.0	Gefle, Sweden	Adelaide, Australia	General	4,087	8,274	6,098
Texas Maru	4	5.55	4	8.35	4	17.14	4	18.50	Japanese	Kokusai Kisen Kaisha	425.0	53.8	28.0	New York, N. Y.	Kobe, Japan	General	8,892	6,899	5,139
Torres [1]	4	7.05	4	10.50	4	18.09	4	19.45	American	Southern Pacific Co.	371.5	53.0	17.0	Chester, Pa	Los Angeles, Calif	Ballast		5,236	3,601
Rata	4	8.43	4	13.10	4	20.37	4	22.15	British	Anchor Shipping Co.	209.0	34.5	12.8	Greenock, Engl'd	Nelson, N. Z.	Ballast		1,016	374
Harry Luckenbach	4	12.55	4	13.10	4	19.36	4	20.42	American	Luckenbach Line	448.9	60.2	23.0	New Orleans, La.	Seattle, Wash.	General	4,660	9,262	6,853
Real (ex Nya Gunnebo) [2]			4	6.30	5	14.00			Panaman	H. Elliott	62.0	17.0		Cristobal, C. Z.	Balboa, C. Z.	Bananas	54	46	22
Mary Luckenbach [1]	4	21.55	5	6.30	5	13.57	5	15.05	American	Shell Oil Co	410.0	54.0	18.0	Mobile, Ala	Los Angeles, Calif	Ballast		6,500	4,511
California	5	5.45	5	7.35	5	14.18	6	00.05	American	Panama-Pacific Line	574.4	80.3	26.0	New York, N. Y.	San Francisco, Cal.	General	4,367	24,506	17,565
Port Alma [2]	5	7.00	5	8.40	5	16.00	5	23.00	British	Com'lth & Dom. Line.	495.0	63.0	28.0	Antwerp, Belgium	New Plym'th, N.Z.	General	13,187	10,684	7,796
Sir. Karl Knudsen [1] [2]	4	22.25	5	9.48	5	16.47	5	19.44	Norwegian	Anglo-Saxon Pet. Co.	450.5	59.2	20.0	Falmouth, Engl'd	Los Angeles, Calif	Ballast		8,085	5,592
Hawaii Maru	5	9.20	5	9.50	5	17.45	5	18.50	Japanese	Osaka Shosen Kaisha	475.0	61.0	25.0	Buenos Aires, Arg.	Kobe, Japan	Cotton, oil, etc.	5,798	10,173	7,354
Santa Inez [2]	4	23.15	5	10.45	5	17.43	5	22.18	American	Grace Line	370.0	53.2	19.6	New York, N. Y.	Valparaiso, Chile	General	1,340	6,255	4,016
Hagood [1]	5	13.48	5	14.00	5	20.40	5	23.00	American	The Texas S. S. Co.	435.6	52.2	18.0	New York, N. Y.	Los Angeles, Calif	Ballast		7,426	5,094
Sun [1] [2]	5	15.40	5	15.50	5	22.52	5	23.50	American	Sun Oil Co	480.0	66.0	21.0	Philadelphia, Pa.	Los Angeles, Calif	Ballast		9,620	6,476
Agnes M. [11]			5	7.30	5	9.50			American	Frank Mott				Cristobal, C. Z	Gatun, C. Z.	Ballast		1	1
Bantu	6	6.35	6	10.10	6	18.00	6	19.00	American	Isthmian S. S. Lines	360.0	47.0	25.10	New York, N. Y.	Corral, Chile	Steel	4,838	4,607	3,032
Manizales	3	23.10	6	10.35	6	17.13	6	18.34	German	North German Lloyd	216.5	33.0	13.6	Cristobal, C. Z	Guayaquil, Ecuad'r	General	482	1,132	741
Spirila [1]	6	2.20	6	11.35	6	18.21	6	19.31	British	Anglo-Saxon Pet. Co.	412.0	53.4	18.8	Rotterdam, Holland	San Francisco, Cal.	Ballast		6,126	4,352
Vancolite [1] [2]	6	13.52	6	14.05	6	20.34	7	7.15	British	Imperial Oil Co	510.2	68.2	23.0	Halifax, N. S.	Talara, Peru	Ballast		11,573	7,096
William Penn [2]	6	15.25	6	15.35	6	22.00	6	23.28	American	Roosevelt S.S. Co., S. B.	439.6	60.2	25.6	New York, N. Y.	Shanghai, China	General, case oil	7,229	9,019	6,226
W. L. Steed [1]	6	16.05	6	20.20	7	11.25	7	12.45	American	American Oil Co	416.8	56.1	21.3	Baltimore, Md.	Los Angeles, Calif	Ballast		6,751	4,795

[1] Tanker. [11] Sloop.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

William H. Doheny [1]	6-30	1.00	30	6.54	30	14.25	30	14.35	American	Pan.-Amer.Pet.&Tr.Co.	435.0	56.2	26.0	Los Angeles, Calif	Baltimore, Md.	Gasoline	9,200	7,406	6,965
Somme [12]	30	12.49	30	13.39	30	20.00	7-2	00.20	American	Quartermaster Corps	448.0	58.0	23.0	San Francisco, Cal.	Brooklyn, N. Y.	Army supplies	1,680		
Galveston [13]			7-1	6.06	1	13.55	7-30	18.50	American	U. S. Navy	292.0	44.0		Balboa, C. Z	Cristobal, C. Z.				
Markland [1] [14]	30	15.45	1	6.44	1	14.55	1	14.55	Norwegian	O. & G. Irgens	408.3	55.3	26.0	Los Angeles, Calif	Ellesmere, England	Gasoline	8,633	6,474	4,321
Ingrid	1	00.20	1	7.17	1	16.40	1	17.35	Norwegian	A. Andreassen	279.0	40.1	19.0	Pachagamac Isle	Dublin, Ireland	Guano	2,965	2,617	1,493
Rimac	6-30	19.10	1	7.56	1	15.35	1	18.35	Peruvian	Peruvian S. S. Co.	435.0	53.2	26.9	Tocopilla, Chile	New Orleans, La.	Nitrates	7,577	7,644	5,415
Altair [1]	1	7.50	1	8.21	1	18.30	1	18.30	American	Standard Transp. Co.	429.3	59.2	26.0	Los Angeles, Calif	Providence, R. I.	([15])	10,600	7,695	5,402
Santa Teresa	1	7.55	1	9.15	1	17.55	1	20.35	American	Grace Line	360.2	51.6	26.6	Talcahuano, Chile	New York, N. Y.	([16])	3,988	5,726	4,086
Mystic	1	2.30	1	9.37	1	18.50	2	8.25	American	Munson, McCor'k Line	400.7	54.2	26.0	Seattle, Wash.	Ponce, P. R.	Lumber, general	7,478	6,623	4,668
Abraham Lincoln [14]	1	14.15	1	14.55	1	21.40	2	15.44	Norwegian	Fred Olsen & Co	436.0	56.2	27.4	Vancouver, B. C.	Oslo, Norway	General	7,670	8,005	5,953

[1] Tanker. [12] U. S. Army transport. [13] Cruiser. [14] Motor ship. [15] Kerosene distillate. [16] Copper, nitrates, and cotton.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Huntingdon	1	14.45	2	6.12	2	14.10	2	16.15	British	Federal Steam Nav. Co.	520.7	64.0	24.0	Bluff, N. Z.	Liverpool, England	Frozen, general	7,251	12,945	9,378
El Lobo [1]	1	15.15	2	6.40	2	17.05	2	17.05	British	C. T. Bowring & Co.	385.2	51.0	23.0	La Libertad, Ecua.	Philadelphia, Pa.	Crude oil	6,164	4,851	3,326
Cauca [17]	1	18.00	2	6.57	2	17.30			Colombian	Nacional Navegacion Co.	107.2	23.0	11.0	Buenaventura, Col.	Cristobal, C. Z.	Sugar, coffee	283	238	163
Maltran	2	4.30	2	7.09	2	17.20	2	17.20	American	Mallory Transport Co.	333.8	48.0	22.6	Seattle, Wash.	New York, N. Y.	Lumber	4,800	4,172	2,827
Gargoyle [1]	2	1.30	2	7.51	2	18.20	2	18.20	American	Vacuum Oil Co	425.0	57.2	27.0	San Francisco, Cal.	Philadelphia, Pa.	Lubricating oil	10,117	7,510	4,989
Virginia	1	11.15	2	8.14	2	16.20	2	16.55	American	Panama-Pacific Line	586.0	80.3	20.0	San Francisco, Cal.	New York, N. Y.	General	7,500	25,254	18,170
Republic [1]	2	6.40	2	8.58	2	18.35	2	18.35	American	Petroleum Nav. Co.	391.8	51.3	23.9	San Francisco, Cal.	Baltimore, Md.	Gasoline	5,107	5,551	3,881
Orinoco	2	9.15	2	9.53	2	19.10	2	19.10	American	States S. S. Co	336.4	52.2	23.6	Seattle, Wash.	Wilmington, Del.	Lumber, cork	5,688	5,455	3,902
Alaska	2	11.45	2	12.20	2	19.45	2	19.45	Norwegian	Scand.-So. Pacific Co.	410.5	54.1	23.6	San Antonio, Chile.	Curacao, D.W.I. [19]	Nitrates, copper	7,121	6,563	3,799
Iowan	2	11.55	2	12.46	2	20.25	2	20.25	American	Amer.-Hawaiian Line	407.7	53.7	23.0	Portland, Oreg.	Boston, Mass.	General	5,673	7,079	5,028
Robin Hood	2	16.25	3	6.11	3	13.50	3	13.50	American	Seas Shipping Co.	424.8	55.2	24.6	Everett, Wash.	New York, N. Y.	Lumber	6,817	7,473	5,533
Presidente Sarmiento [18]	6-29	8.30	3	6.55	3	19.10	4	00.35	Argentine	Argentine Government	279.0	44.0	19.0	Valparaiso, Chile	Habana, Cuba				2,700
Visurgis	3	5.30	3	7.14	3	20.50			German	North German Lloyd	231.2	37.8	12.0	Puntarenas, C. R.	Cristobal, C. Z.	Ballast		1,406	741
Pacific Enterprise [17]	2	18.30	3	7.21	3	18.40	3	18.40	British	Furness-Pacific, Ltd.	435.9	60.1	27.5	Vancouver, B. C.	Glasgow, Scotland	General	7,726	9,641	6,989
Wasgenwald	2	20.30	3	7.45	3	19.30	3	23.50	German	Hamburg-American Line	399.4	54.2	26.3	Talcahuano, Chile	Hamburg, Germany	Nitrates	7,870	6,536	4,516
Canadian Britisher	3	4.30	3	8.16	3	20.00	3	23.35	British	Can. Nat. Steamships	400.3	52.2	18.0	Auckland, N. Z.	Montreal, Canada	Wool, hides, gum	1,832	5,906	4,187
Andrea F. Luckenbach	3	4.05	3	9.10	3	20.35	3	20.35	American	Luckenbach Line	496.0	68.2	27.0	Portland, Oreg.	Boston, Mass.	Lumber, general	10,114	11,487	8,762
Tacoma Star	3	8.45	3	9.53	3	22.40	4	3.15	British	Blue Star Line	450.0	58.5	26.6	N. Westm'ter, B.C.	Liverpool, England	General	7,119	8,240	5,395
Manizales	3	9.15	3	10.30	3	23.10			German	North German Lloyd	216.5	32.9	14.0	Guayaquil, Ecuad'r	Cristobal, C. Z.	(20)	550	1,132	741
Glamorgan-shire	3	9.55	3	11.06	3	23.35	4	8.20	British	Royal Mail S. P. Co.	445.0	58.0	27.2	Vancouver, B. C.	Antwerp, Belgium	General	9,660	8,229	5,982
Cerigo	3	10.00	3	11.10	3	22.30			German	Hamburg-American Line	239.3	34.6	12.7	Guayaquil, Ecuad'r	Cristobal, C. Z.	(21)	360	1,572	1,011
Oakworth [17]	3	8.30	3	13.18	4	00.10	4	00.45	British	Canadian Transp. Co.	400.1	53.2	25.0	Vancouver, B. C.	Montreal, Canada	Lumber	6,063	5,615	3,759
Gen. Wm. M. Graham			3	15.18	3	21.30			American	U. S. Army	160.2	32.0		Balboa, C. Z.	Cristobal, C. Z.	Mine planter			
Charles H. Cramp	3	16.30	4	6.06	4	13.37	4	13.37	American	Argonaut S. S. Co	404.6	53.9	25.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	6,268	6,755	4,750
Pacific Redwood	3	18.33	4	6.27	4	14.20	4	14.20	American	Dimon S. S. Corp	409.6	54.3	24.6	Tacoma, Wash.	Baltimore, Md.	Lumber	7,658	6,537	4,841
Andromede	3	22.00	4	7.27	4	17.15	5	1.00	French	Messageries Maritimes	450.3	51.9	22.0	Noumea, New Cal.	Dunkirk, France	General	3,924	7,984	5,472
Hampton Roads [1]	4	2.00	4	7.49	4	16.30	4	16.30	American	Oil Transport Co	431.0	59.2	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,561	8,093	5,347
Phrygia [17]	4	6.30	4	8.13	4	17.25	4	21.30	German	Hamburg-American Line	374.2	53.6	13.0	Champerico, Guat.	Hamburg, Germany	Ballast		5,417	3,457
Cordelia [1]	4	6.00	4	8.31	4	18.28	4	22.50	British	C. T. Bowring & Co.	420.3	54.6	26.6	Los Angeles, Calif.	Land's End, Eng. [19]	Benzine	8,540	6,837	5,043

[1] Tanker. [17] Motor ship. [18] Training ship. [19] For orders. [20] Rice, coffee, and hides. [21] Cocoa, ivory nuts, coffee, and general.

Santore	4	7.30	4	9.20	4	19.30	4	19.30	American	Ore S. S. Corp	449.1	57.2	30.0	Cruz Grande, Chile	Baltimore, Md.	Iron ore	11,811	7,808	5,139
Schwaben	4	9.45	4	10.46	4	19.05	4	21.13	German	North German Lloyd	491.5	63.8	26.7	Vancouver, B. C.	Antwerp, Belgium	[23]	9,586	10,002	6,743
Point Montara	4	11.00	4	11.55	4	20.10	4	20.10	American	Swayne & Hoyt	324.0	46.2	21.0	Portland, Oreg.	New Orleans, La.	Lumber, general	3,097	3,984	2,612
Heinrich Arp	4	9.45	4	12.45	4	20.15	5	11.25	German	Colombia Mar. Co.	237.0	37.0	13.0	Buenaventura, Col.	New York, N. Y.	Coffee, hides, etc	718	1,718	1,167
Pear Branch	4	11.30	4	12.50	4	20.50	4	21.35	British	F. & W. Ritson	398.6	53.8	21.7	Corral, Chile	Liverpool, England	[24]	5,418	5,760	3,866
K. R. Kingsbury [1]	4	13.55	4	15.05	4	20.55	4	22.55	American	Standard Oil Co. of Cal.	440.0	58.2	28.6	Los Angeles, Calif.	Baltimore, Md.	Gasoline	10,000	9,033	5,938
Oil Trader [1]	4	18.30	5	6.18	5	13.48	5	13.48	British	British Oil Shipping Co.	410.0	53.5	23.0	San Francisco, Cal.	Land's End, Eng. [22]	Gasoline	8,053	5,928	3,919
Edgar F. Luckenbach	4	21.00	5	7.04	5	14.25	5	14.25	American	Luckenbach Line	425.0	57.3	31.6	Portland, Oreg.	Mobile, Ala	Lumber, general	8,691	8,568	6,648
Kentuckian	5	1.19	5	7.24	5	14.55	5	14.55	American	Amer.-Hawaiian Line	414.6	53.7	25.4	Seattle, Wash.	Boston, Mass.	General	5,419	7,049	4,941
Sutermeo	5	6.40	5	7.42	5	15.45	5	18.50	American	Transmarine Lines	324.0	46.2	25.0	Aberdeen, Wash.	Newark, N. J.	Lumber	4,100	3,984	2,628
Panquiaco			5	8.06	5	15.35	5	15.35	Panaman	Panaman Government	125.6	23.6	14.5	Balboa, C. Z.	Cristobal, C. Z.	Revenue cutter			
Birmingham City	5	8.00	5	8.48	5	17.05	5	22.54	American	Isthmian S. S. Lines	393.5	55.0	27.4	Vancouver, B. C.	Avonmouth, Eng.	[25]	7,957	7,304	5,188
Dochet	5	8.30	5	9.22	5	17.25	5	17.25	American	Redwood Line, Inc.	386.8	52.2	23.4	San Francisco, Cal.	Mobile, Ala	Lumber, general	6,600	5,705	4,167
Sunelseco	5	10.30	5	11.19	5	19.15	5	20.50	American	Transmarine Lines	324.0	46.2	25.6	Seattle, Wash.	New York, N. Y.	Lumber	3,918	3,984	2,612
Orangemoor	5	11.10	5	11.53	5	20.00	5	21.30	British	W. Runciman & Co.	399.6	53.0	26.0	Portland, Oreg.	Dublin, Ireland	Wheat	8,162	5,888	4,326
Condor	5	14.00	5	14.43	5	22.25	6	00.55	Chilean	Sco. Mart. Comm	356.4	45.3	26.0	Valparaiso, Chile	New York, N. Y.	Nitrates	4,775	4,421	3,063
Malchase	5	14.00	5	15.03	5	23 10	6	4.55	American	Mallory Transport Co.	333.8	48.0	23.0	Newport, Oreg.	Poughkeepsie, N. Y.	Lumber	4,600	4,162	2,898
Oakmar	5	20.55	6	6.33	6	13.45	6	13.45	American	Calmar S. S. Corp.	384.4	51.2	23.0	Gray's Har., Wash.	Philadelphia, Pa.	Lumber	6,000	6,327	4,433
Negada	6	6.00	6	7.15	6	15.20	6	23.00	German	Hamburg-American Line	410.9	50.7	26.0	Corral, Chile	Hamburg, Germany	General	3,709	6,478	4,530
San Mateo	6	14.30	6	15.06	6	21.43	7	14.15	American	United Fruit Co	315.2	44.2	20.6	San Francisco, Cal.	Port Limon, C. R.	Gasoline, general	643	3,496	2,141

[1] Tanker. [22] For orders. [23] Wheat, lumber, general. [24] Nitrate, cotton, general. [25] Wheat, barley, spelter, lumber, and general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
June 30	Atlas	Royal Netherlands S. S. Co.	Curacao, D. W. I.	June 30	Planter	T. & J. Harrison	Cartagena, Colombia.
June 30	Pastores	United Fruit Co.	Port Limon, Costa Rica.	June 30	Wanks	Standard Fruit & S. S. Co.	San Blas, R. P.
July 1	Frederic Ewing	Pan.-Amer. Pet. & Transp. Co.	Aruba, D. W. I.	June 30	Pastores	United Fruit Co.	New York via Habana.
July 1	No. 9776 [26]	Pan-American Airways	Barranquilla, Colombia.	July 1	Parismina	United Fruit Co.	New Orleans via wayports.
July 1	Saramacca	United Fruit Co.	Puerto Colombia.	July 1	Saramacca	United Fruit Co.	Bocas, R. P.
July 1	Swiftarrow	C. D. Mallory & Co.	Curacao, D. W. I.	July 2	No. 9664 [26]	Pan-American Airways	Managua via David.
July 1	Ulua	United Fruit Co.	New York via Habana.	July 2	Frederic Ewing	Pan.-Amer. Pet. & Transp. Co.	San Nicolas via Aruba.
July 1	No. 9688 [26]	Pan-American Airways	Managua via David.	July 2	Mercian	Leyland S. S. Line	Cartagena, Colombia.
July 2	Rugia	Hamburg-American Line	Hamburg via wayports.	July 3	Ulua	United Fruit Co.	Port Limon, Costa Rica.
July 2	Southern Star No. 1283 [26]	American International Airways	Tampa, Fla. via wayports.	July 3	Rugia	Hamburg-American Line	Tampico via wayports.
July 2	Inapaquina [27]	United Fruit Co.	Colon, R. P.	July 3	Carare	Elders & Fyffes	Avonmouth via wayports.
July 3	Cristobal	Panama R. R. S. S. Line	New York via Haiti.	July 3	Swiftarrow	C. D. Mallory & Co.	Curacao, D. W. I.
July 3	Carare	Elders & Fyffes	Avonmouth via wayports.	July 4	Colombia No. 28 [26]	Scadta Airplane Co.	Barranquilla, Colombia.
July 3	Zacapa	United Fruit Co.	New York via Kingston.	July 4	No. 9688 [26]	Pan-American Airways	Managua via David.
July 3	Colombia No. 28 [26]	Scadta Airplane Co.	Barranquilla, Colombia.	July 4	Zacapa	United Fruit Co.	New York via wayports.
July 3	No. 8044 [26]	Pan-American Airways	Guayaquil via wayports.	July 5	Anachucuna [27]	United Fruit Co.	Colon, R. P.
July 4	Coppename	United Fruit Co.	New Orleans, La.	July 5	No. 9776 [26]	Pan-American Airways	Curacao via Colom. ports.
				July 5	No. 8044 [26]	Pan-American Airways	Guayaquil via wayports.

[26] Air mail carrier. [27] Motor boat. * Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 4	No. 9664 [28]	Pan-American Airways	Managua via David.	July 5	Coppename	United Fruit Co	Port Limon via Bocas.
July 5	Saramacca	United Fruit Co	Bocas, R. P.	July 5	Saramacca	United Fruit Co	New Orleans, La.
July 5	Atlantida	Standard Fruit & S. S. Co	New Orleans via Habana.	July 6	Atlantida	Standard Fruit & S. S. Co	New Orleans via wayports.
July 5	Maravi	United Fruit Co	New York via wayports.	July 6	Maravi	United Fruit Co	New York via Kingston.
July 5	Anachucuna [29]	United Fruit Co	Colon, R. P.	July 6	Linda S [30]	A. L. Surgeon	Bluefields, Nicaragua.
July 6	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	July 6	No. 9685 [28]	Pan-American Airways	Managua via David.
July 6	Waunta	Standard Fruit & S. S. Co	Puerto Cabezas.				
July 6	No. 9688 [28]	Pan-American Airways	Managua via David.				
July 6	Heredia	United Fruit Co	New Orleans via Habana.				
July 6	Linda S. [30]	A. L. Surgeon	Colon, R. P.				

[28] Air mail carrier. [29] Motor boat. [30] Motor schooner.

PORT OF BALBOA.

June 30	Lucky Girl [31]	G. L. Gustafson	Buenaventura, Colombia.	July 5	Sambu [31]	Hans Elliot	Panama Bay, R. P.
July 5	Sambu [31]	Hans Elliot	Bayano River, R. P.	July 5	A. B. de Obarrio [31]	Pacific Fruit Co	Panama Bay, R. P.
July 5	A. B. de Obarrio [31]	Pacific Fruit Co	Bayano River, R. P.	July 5	Dos Hermanos [31]	A. Valdez	Panama Bay, R. P.
July 5	Dos Hermanos [31]	A. Valdez	Bayano River, R. P.				
July 6	San Luis [31]	Chiriqui Land Co	Pto. Armuelles, R. P.				

[31] Motor schooner.

* Other than ships passing through the Canal.

"Scadta" Makes Survey of Coasts for Air Services.

The completion by the Sociedad Colombo-Alemana de Transportes Aeros ("Scadta") of a survey for its West Coast service has been announced by the local representatives of the company. This survey was made by Dr. Troll, professor of geography of the University of Munich, who was a recent visitor in Panama, and covers climatic, geographical, and atmospheric conditions over the shore lines followed by "Scadta" seaplanes.

The present West Coast service of this company extends from Cristobal to Paita, Peru, with intermediate stops at Buenaventura, Colombia, and Guayaquil, Ecuador. The planes now proceed on the Atlantic side as far as Sautata, at the mouth of the Atrato River, then follow the Atrato to the divide, then down to Buenaventura and on down the Pacific.

Notice to Mariners.

THE PANAMA CANAL EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *June 29, 1929.*

No. 556

The following was received by the Hydrographic Office from the Pilot in Charge, Lighthouse Subdivision, The Panama Canal:

The South Frailes gas and whistling buoy near Cape Mala, Republic of Panama, reported missing in Notice to Mariners No. 552, dated June 21, 1929, is now in position and functioning.
(Signed) F. KARIGER, *Pilot in Charge.*

H. BURGESS,
Governor.

Traffic by Nationality for June, 1929.

The following tabulation shows the commercial traffic through the Canal during the month of June, 1929, classified according to nationality of vessels by direction of transit, and the combined traffic in both directions, together with the corresponding totals for June, 1928 and 1927:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian	1	4,792	4,142	6,512	4,038	$5,177.50	6,638
British	71	378,023	279,312	458,520	281,594	320,636.80	257,884
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	2,908
Colombian	4	718	692	1,052	692	846.50	1,046
Danish	5	18,695	12,732	20,936	12,879	15,915.00	25,482
Danzig	1	6,127	5,268	8,939	5,007	4,411.44	.....
Dutch	6	31,004	22,507	37,299	22,168	26,105.55	22,332
French	4	20,996	17,067	25,328	15,453	21,333.75	17,609
German	18	63,107	44,210	73,799	43,956	53,807.67	54,521
Italian	4	23,164	16,772	28,892	17,597	20,965.00	4,921
Japanese	6	29,172	24,834	36,712	24,448	28,904.27	34,012
Norwegian	13	42,856	31,605	52,282	31,572	36,310.54	36,510
Panaman	2	2,657	1,434	2,547	1,434	1,792.50	3,557
Peruvian	2	1,872	1,818	2,620	1,445	2,086.05	1,943
Swedish	6	24,410	17,518	46,894	20,834	18,960.24	16,956
United States	127	630,965	491,052	789,228	490,383	551,904.70	406,407
Yugoslav	1	4,163	3,593	5,687	3,562	4,491.25	6,660
Totals, June, 1929	272	1,287,393	977,989	1,604,457	981,038	1,117,940.01	899,386
Totals, June, 1928	270	1,257,739	946,939	1,547,357	948,858	1,079,160.72	765,234
Totals, June, 1927	247	1,158,119	896,347	1,460,310	896,671	999,889.89	708,569

PACIFIC TO ATLANTIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
British	55	278,026	207,411	344,880	210,757	$259,263.75	332,921
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	3,011
Colombian	3	950	894	1,543	902	1,115.30	1,004
Danish	4	18,492	15,363	23,485	15,444	19,203.75	31,473
Danzig	1	6,127	5,268	8,939	5,007	6,585.00	11,375
Dutch	7	30,629	18,369	31,552	18,671	22,961.25	41,884
Finnish	1	1,835	1,828	1,979	1,709	2,202.00	3,200
French	3	14,150	10,993	18,105	10,813	13,741.25	23,518
German	15	57,827	41,294	67,973	41,044	50,780.99	74,279
Greek	2	8,001	5,141	8,256	5,066	6,426.25	15,200
Italian	3	17,522	12,405	22,112	13,123	15,506.25	15,072
Japanese	5	25,933	21,616	32,332	21,152	26,840.55	32,958
Norwegian	13	45,325	35,561	57,768	34,775	43,488.47	76,661
Panaman	1	54	51	86	50	63.75	.....
Swedish	7	27,347	20,568	52,432	24,817	25,710.00	69,286
United States	108	520,740	404,152	654,422	403,233	504,882.40	779,099
Yugoslav	2	7,375	5,410	8,550	5,426	6,762.50	13,675
Totals, June, 1929	231	1,065,038	809,790	1,341,724	815,965	1,009,865.96	1,524,616
Totals, June, 1928	211	970,126	750,666	1,230,149	751,298	937,050.37	1,374,331
Totals, June, 1927	208	994,807	777,474	1,285,036	783,842	970,488.08	1,520.528

COMBINED TRAFFIC.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Belgian	1	4,792	4,142	6,512	4,038	$5,177.50	6,638
British	126	656,049	486,723	803,300	492,351	579,900.55	590,805
Chilean	2	9,377	6,899	14,620	7,952	8,623.75	5,919
Colombian	7	1,668	1,586	2,595	1,594	1,961.80	2,050
Danish	9	37,187	28,095	44,421	28,323	35,118.75	56,955
Danzig	2	12,254	10,536	17,878	10,014	10,996.44	11,375
Dutch	13	61,633	40,876	68,851	40,839	49,066.80	64,216
Finnish	1	1,835	1,828	1,979	1,709	2,202.00	3,200
French	7	35,146	28,060	43,433	26,266	35,075.00	41,127
German	33	120,934	85,504	141,772	85,000	104,588.66	128,800
Greek	2	8,001	5,141	8,256	5,066	6,426.25	15,200
Italian	7	40,686	29,177	51,004	30,720	36,471.25	19,993
Japanese	11	55,105	46,450	69,044	45,600	55,744.82	66,970
Norwegian	26	88,181	67,166	110,050	66,347	79,799.01	113,171
Panaman	3	2,711	1,485	2,633	1,484	1,856.25	3,557
Peruvian	2	1,872	1,818	2,620	1,445	2,086.05	1,943
Swedish	13	51,757	38,086	99,326	45,651	44,670.24	86,242
United States	235	1,151,705	895,204	1,443,650	893,616	1,056,787.10	1,185,506
Yugoslav	3	11,538	9,003	14,237	8,988	11,253.75	20,335
Totals, June, 1929	503	2,352,431	1,787,779	2,946,181	1,797,003	2,127,805.97	2,424,002
Totals, June, 1928	481	2,227,865	1,697,605	2,777,506	1,700,156	2,016,211.09	2,139,565
Totals, June, 1927	455	2,152,926	1,673,821	2,745,346	1,680,513	1,970,377.97	2,229,097

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

THE PANAMA CANAL RECORD

OFFICIAL PUBLICATION OF THE PANAMA CANAL.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., July 17, 1929. No. 50.

Canal Traffic During the First Fifteen Days of July.

During the first 15 days of July, 260 commercial vessels and four small launches transited the Canal. Tolls on the commercial vessels aggregated $1,108,580.48, and on the launches $12, or a total tolls collection of $1,108,592.48.

The daily average of transits of commercial vessels was 17.33 and the average tolls collection $73,905.36, as compared with 16.60 transits and $70,394.21 in tolls for the first 15 days of the previous month. The average amount of tolls paid by each of the commercial transits was $4,263.77, as compared with $4,240.62 for the first 15 days of June.

In the following tabulation the number of commercial transits and the amount of tolls collected are shown for the first 6½ months of the current calendar year, with the daily averages of transits and tolls, together with the totals for the first 6½ months of the calendar year 1928 and 1927:

	Totals for month.		Daily averages.	
	Transits.	Tolls.	Transits.	Tolls.
January	603	$2,502,815.12	19.45	$80,735.97
February	522	2,211,961.20	18.64	78,998.62
March	536	2,343,865.55	17.29	75,608.57
April	540	2,281,087.27	18.00	76,036.24
May	524	2,296,546.57	16.90	74,082.15
June	503	2,127,805.97	16.76	70,926.87
July (first 15 days)	260	1,108,580.48	17.33	73,905.36
Totals, first 6½ months of calendar year 1929	3,488	14,872,662.16	17.79	75,880.93
Totals, first 6½ months of calendar year 1928	3,394	14,007,606.80	17.22	71,104.60
Totals, first 6½ months of calendar year 1927	3,027	13,357,135.01	15.44	68,148.65

Supplement No. 13—Tariff No. 9.

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., *July 12, 1929.*

ITEM 45—RIGHT OF BASIN.

Effective August 1, 1929, vessels of more than ten (10) Panama Canal gross tons propelled by machinery or sail and all other vessels of more than twenty (20) Panama Canal gross tons (vessels of the United States, Panaman and Colombian Governments excepted) shall be assessed a right of basin charge of one-half cent per Panama Canal gross ton for each day such vessel shall remain in Canal Zone waters at an anchorage or moorings other than at structures for which wharfage or moorage is charged by the Panama Canal.

No charge will be made against vessels removed from Canal Zone waters within thirty days. Vessels remaining more than thirty days shall be charged for the full time they remain in Canal Zone waters.

Bills will be prepared by:

(*a*) The Port Captain, Cristobal, for all vessels in waters north of Gamboa.
(*b*) The Port Captain, Balboa, for all vessels in waters south of Gamboa.

H. BURGESS,
Governor, The Panama Canal,
President, Panama Railroad Company.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, July 13, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Visurgis	3	20.50	7	6.08	7	14.49	7	17.55	German	North German Lloyd	231.0	37 8	14 6	Cristobal, C. Z	Puntarenas, C. R.	General	1,008	1,406	855
Dio	6	15.55	7	6.20	7	13 03	7	14.20	American	Redwood Line	381.0	52 0	20 6	New Orleans, La	San Francisco, Cal.	Gen., coke, etc	2,899	5,708	4,133
Bethore	6	6.12	7	6.15	7	13.48	7	15 35	American	Ore S. S. Corp	550.0	72 0	23 2	Norfolk, Va	Cruz Grande, Chile	Ballast		15,476	4,354
Apple Branch	7	5.35	7	7.15	7	14.42	7	16 05	British	Nautilus S. S. Co	376.0	51 0	19 0	Liverpool, England	Corral, Chile	General	2,236	5,112	3,511
Pennsylvanian	7	5.57	7	7.35	7	14.54	7	16 05	American	Amer.-Hawaiian Line	407.7	53.7	20 6	Boston, Mass	Portland, Oreg	General	4,183	7,107	5,041
Pacific	7	9.20	7	10.00	7	17.51	7	23.58	American	Argonaut S. S. Co	400.0	56 0	25 7	Mobile, Ala	San Francisco, Cal.	Steel rails, etc	8,195	6,517	4,723
Margaret Johnson [2]	6	22 05	7	12.10	7	18.37	7	23 06	Swedish	Johnson Line	405.0	54 0	24 3	Stockholm, Sweden	San Francisco, Cal.	General	4,651	7,048	5,337
Lebore	7	6 08	7	13 10	7	20 48	7	22.00	American	Ore S. S. Corp	549.0	72 0	24 8	New York, N. Y	Cruz Grande, Chile	Ballast		14,325	4,635
Askeladden	6	12.20	7	13.50	7	21.59	7	23.06	Norwegian	G. T. Farsjoe	295.7	43 6	20 0	Norfolk, Va	Callao, Peru	Coal	3,269	2,832	1,912
Cerigo	3	22.30	7	16 40	8	11.16	8	12 55	German	Hamburg-American Line	227.0	34.0	15 7	Cristobal, C. Z.	Guayaquil, Ecuad'r	General	355	1,572	1,011
Ark [3]			7		7	8.33			American	H. E. Merryman				Cristobal, C. Z	Catun, C Z	Ballast		8	8
Los Angeles [2]	7	8.40	8	6.10	8	14.55	8	18.15	German	Hamburg-American Line	432.0	59 0	21.10	Hamburg, Germany	Vancouver, B. C.		4,933	8,454	6,344
Hadnot [2]	7	20.25	8	6.20	8	14.57	8	16.15	American	Shell Oil Co	416.9	56 2	18 0	New York, N. Y	Los Angeles, Calif	Ballast		6,706	4,639
West Notus	8	3.10	8	7.10	8	15.53	8	19.53	American	McCormick S. S. Co	410.5	54.3	19 0	Buenos Aires, Arg	San Francisco, Cal.	Coffee, guano	3,120	6,583	5,014
Margarethe Cords	8	6.05	8	7.15	8	15.53	8	17.30	German	Colombian Mar. Co.	265.0	42 0	12 0	New York, N. Y	Buenaventura, Col.	General	497	2,263	1,622
Tai Yin [2]	8	1.30	8	8.10	8	16.54	8	18 15	Norwegian	Barber S. S. Line	461.0	60 1	26 0	New York, N. Y	Shanghai, China	General	8,082	9,997	7,063
S-12 [4]			8	8 25	8	16.34			American	U. S. Navy	231.0	21 10		Cristobal, C. Z	Balboa, C. Z	Ballast			
S-13 [4]			8	8 25	8	16 34			American	U. S. Navy	231.0	21 10		Cristobal, C. Z	Balboa, C. Z	Ballast			
S-20 [4]			8	8.25	8	15.55			American	U. S. Navy	219 3	20 8		Cristobal, C. Z	Balboa, C. Z	Ballast			
Steel Seafarer	8	9.27	8	9.45	8	17 30	8	23.08	American	Isthmian S. S. Lines	425.0	56 0	25 0	Philadelphia, Pa	Singapore, Str. Set.	Steel, general	7,952	7,611	5,454
Pipiriki	8	10.05	8	10.25	8	17.40	8	23.08	British	Norton, Lilly & Co	472.0	59.4	25.0	New York, N. Y	Dunedin, N. Z	General	5,121	8,710	6,216
Nosa Chief	8	7.00	8	12.00	8	18 36	8	19.53	American	N. O. & S. A. S. S. Co	300.0	45 0	20 5	New Orleans, La	Talcahuano, Chile	General	2,154	3,256	2,010
Pennmar	8	9.05	8	12.45	8	20.15	9	00.15	American	Calmar S. S. Line	385.3	51.2	27.10	Baltimore, Md	Seattle, Wash	General, steel	8,028	6,224	4,465
Gaasterdijk	7	17.00	8	13.45	8	20.54	8	22.12	Dutch	Holland-American Line	450.0	58.0	19 7	Rotterdam, Holland	Vancouver, B. C	General	3,800	9,038	6,164
Rochester [5]	8	14.10	9	6 02	9	13.36			American	U. S. Navy	380.0	64 0	26.0	Cristobal, C. Z	Balboa, C. Z	Ballast			
Trimountain [1]	8	22.05	9	6.10	9	14 09	9	15 30	American	B. L. Shipping Co	416 0	56 2	26 5	Amsterdam, Holl'd	Los Angeles, Calif	Creosote	8,659	6,728	4,734
Ario [2]	9	00.35	9	7.05	9	14 22	9	15 30	American	Standard Oil Co	435.6	56 2	21 0	New York, N. Y	Los Angeles, Calif	Ballast		7,386	5,117
Vinland [2]	9	9.15	9	9.35	9	16.41	9	22.12	Norwegian	Scand.-So. Pacific Co.	368.5	53 7	23 6	Antwerp, Belgium	Corral, Chile	General	7,169	5,413	3,965
Lorenzo	9	4.10	9	10 20	9	17.10	9	18.20	British	Norton, Lilly & Co	470.5	62.0	24.5	New York, N. Y	Brisbane, Australia	General	6,593	8,571	6,087
San Mateo	9	12.20	9	13.20	9	20.07	9	21 34	American	United Fruit Co	315.2	44 2	20 0	Port Limon, C. R.	San Francisco, Cal.	General, bananas	501	3,496	2,141
Chickasaw City	9	13 55	9	14.10	9	21.10	10	3.05	American	Isthmian S. S. Lines	395.5	55.0	27.8	Baltimore, Md	Tacoma, Wash	General, steel	8,729	7,322	5,237
Pacific Spruce	9	14 15	9	14.30	9	21.40	9	22 48	American	Dimon S. S. Corp	409.0	54 0	23.6	New York, N. Y	Seattle, Wash	General	6,786	6,624	4,757
Empire Arrow [1]	9	15.10	9	15.30	9	22.15	9	23 29	American	Standard Transp. Co	468.3	62 7	22.0	Providence, R. I.	Los Angeles, Calif	Ballast		9,841	6,946
Epidauro	9	18 25	10	6.08	10	15 38	10	17.40	Yugoslav	Baburizza & Co	360.0	48 0	24.9	London, England	Valparaiso, Chile	Cement	6,200	4,617	3,412
Leikanger	9	19.25	10	6.15	10	16.43	10	18 10	Norwegian	Westfal, Larsen & Co	375.3	52.3	24 0	Buenos Aires, Arg	Vancouver, B. C	Corn, general	6,142	5,953	4,354
Absaroka	9	23.10	10	7.25	10	17.11	10	18.20	American	C. R. McCormack Co	409.6	53.1	21.6	Baltimore, Md	Tacoma, Wash	General, steel	5,156	6,627	4,993

[1] Tanker [2] Motor ship [3] Launch [4] Submarine [5] Cruiser

Thalia [2] [1]	9	23.25	10	7.40	10	17.34	11	00.07	Danzig	W. Tankschiff Rhederei	469.3	63.2	17.0	Hamburg,Germany	Talara, Peru	Ballast		9,018	5,929
Hertford	10	1.10	10	8.35	10				British	N. Z. Shipping Co	520.0	64.0	31.6	Newport, England	Pt. Chalmers, N.Z.	General	11,500	12,933	8,991
Lillian Luckenbach	10	2.30	10	9.00	10	18.26	10	19.15	American	Luckenbach Line	448.0	60.2	23.0	Boston, Mass	Tacoma, Wash	General	5,867	9,294	6,866
Barbara Cates	10	3.55	10	10.10	10	18.42	10	19.45	American	Sudden & Christensen	409.5	54.2	17.6	Baltimore, Md	Seattle, Wash	General	3,700		
Columbian	10	5.35	10	9.55	10	19.11	10	20.15	American	Amer.-Hawaiian Line	404.6	54.0	20.2	Boston, Mass	Tacoma, Wash	General	3,653	6,760	4,450
Annam [2]	10	6.58	10	10.55	10				Danish	East Asiatic S. S. Co	410.0	55.0	24.7	Copenhagen, Den	Vancouver, B. C	General	6,050	7,067	5,286
Ethan Allen	10	3.35	10	11.48	10	20.40	10	22.00	American	Tampa Interocean Co	439.6	60.0	24.6	New Orleans, La	Yokohama, Japan	Gen., kerosene	8,383	8,979	6,525
Modavia	9	2.00	10	12.37	10	19.58	10	23.22	British	Donaldson Line	385.0	54.0	18.3	Glasgow-England	Vancouver, B. C	General, bananas	1,434	6,719	4,979
George Washington [2]	10	11.10	10	14.25	10	21.41	11	1.45	Norwegian	Fred Olsen & Co	425.5	55.3	19.1	Oslo, Norway	Vancouver, B. C	Iron, general	3,541	7,505	5,627
Urdaneta [1] [6]	10	15.45	10	15.55	10	22.30			Venezuelan	Venezuela Gulf Oil Co	305.0	50.0	12.6	Maracaibo, Venez	Balboa, C. Z	Ballast			
L-10 [3]			10	7.45	10	17.00			American	U. S. Army				Cristobal, C. Z	Balboa, C. Z	Ballast			
Caldas [2]	8	17.45	11	5.55	11	14.35	11	20.48	Colombian	National Navigation Co	116.0	21.1	8.0	Cristobal, C. Z	Buenaventura, Col	General	50	211	124
City of Canberra	10	21.50	11	6.08	11	13.21	11	14.35	British	Ellerman & Bucknall	453.2	57.8	28.0	New York, N. Y	Far East	General	8,847	9,175	6,794
Yuri Maru	11	00.50	11	6.23	11	14.37	11	16.40	Japanese	Kokusai Kisen Kaisha	425.0	53.8	17.6	Philadelphia, Pa	Arica, Chile	Ballast		6,909	5,147
W. S. Rheem [1]	11	2.55	11	7.20	11	15.30	11	16.40	American	Standard Oil Co	500.0	68.2	19.6	Philadelphia, Pa	Los Angeles, Calif	Ballast		11,224	7,895
Topila	11	9.05	11	10.50	11	18.40	11	20.00	American	Richfield Oil Co	371.5	59.1	17.6	Chester, Pa	Los Angeles, Calif	Ballast		5,686	3,740
Santa Barbara [2]	11	1.35	11	11.00	11	16.57	12	00.45	American	Grace Line	466.0	64.0	24.0	New York, N. Y	Talcahuano, Chile	General	3,352	10,687	6,633
Elisha Walker [1]	11	11.05	11	13.25	11	19.50	11	21.18	American	Huasteca Petroleum Co	429.2	33.2	19.5	Jacksonville, Fla	Los Angeles, Calif	Ballast		7,978	5,783
Albert Vogler	10	21.35	11	14.45	11	21.58	13	1.25	German	Hamburg-American Line	409.0	54.0	24.8	Hamburg,Germany	San Antonio, Chile	General	6,739	7,173	5,514
Yeifuku Maru	11	18.25	12	6.20	12	15.00	12	16.55	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.10	Jacksonville, Fla	Yawata, Japan	Scrap rails, etc	7,202	5,933	4,595
S-16 [7]	12	6.12	12	6.12	12	12.58			American	U. S. Navy	231.0	21.10		Cristobal, C. Z	Balboa, C. Z	Ballast			
Sunugentco	11	23.55	12	6.12	12	15.40	12	22.00	American	Transmarine Lines	324.0	46.0	17.0	Newark, N. J	San Francisco, Cal	General	1,270	3,984	2,628
President Van Buren	12	3.05	12	7.35	12	16.24	12	22.30	American	Dollar S. S. Line	502.0	62.0	26.6	New York, N. Y	Shanghai, China	General	5,037	12,023	8,495
Tamiahua [1]	11	21.15	12	7.40	12	17.25	12	18.55	American	Richfield Oil Co	500.0	71.2	20.0	Philadelphia, Pa	Long Beach, Calif	Ballast		11,667	8,373
Steel Voyager	12	9.15	12	9.20	12	17.10	12	18.49	American	Isthmian S. S. Lines	395.5	55.0	27.6	Mobile, Ala	Manila, P. I	[8]	8,393	7,330	5,249
Egero [1] [2]	12	6.55	12	10.05	12	17.54	12	22.57	Norwegian	Anglo-Saxon Pet. Co	450.0	61.0	22.0	Antwerp, Belgium	Los Angeles, Calif	Ballast		8,175	5,482
W. H. Libby [1]	12	9.50	12	11.00	12	18.20	12	19.45	American	American Oil Co	462.0	60.2	20.0	Baltimore, Md	Los Angeles, Calif	Ballast		8,461	6,104
Dean Emery [1]	12	8.33	12	12.15	12	19.18	12	20.50	American	Huasteca Petroleum Co	429.3	59.2	20.2	Baltimore, Md	Los Angeles, Calif	Ballast		7,709	5,477
Nebraska	12	6.35	13	6.07	13	14.43	13	15.55	British	Royal Mail S. P. Co	450.0	52.0	21.6	London, England	Vancouver, B. C	General, bananas	3,187	8,878	6,588
S-11 [7]			13	6.10	13	17.25			American	U. S. Navy	219.3	20.8		Cristobal, C. Z	Balboa, C. Z	Ballast			
Pat Doheny [1]	12	16.57	13	7.20	13	15.00	13	16.15	American	Richfield Oil Co	430.2	59.2	19.6	New York, N. Y	Los Angeles, Calif	Ballast		7,978	5,839
Britta [1] [2]	12	19.15	13	7.35	13	15.28	13	16.40	Norwegian	A. S. Damp	407.8	54.7	17.6	Hull, England	Los Angeles, Calif	Ballast		6,539	4,252
Chief Skidegate	13	1.20	13	8.20	13	16.12	13	17.35	British	Can.-Amer. Ship. Co	483.0	57.0	25.0	New York, N. Y	Yokohama, Japan	Phosphate	6,000	10,011	7,278
Peter Kerr	13	5.20	13	8.30	13	16.34	13	17.55	American	Quaker Line	415.0	55.6	26.10	Philadelphia, Pa	Los Angeles, Calif	General	9,080	7,704	5,707
Martha [2]	8	17.35	13	9.35	13	17.27	14	2.04	Norwegian	H. C. Stevenson	183.2	30.0	11.3	Cristobal, C. Z	Pt. Armuelles, R. P.	General	500	780	504
Varg [1] [2]	13	4.05	13	9.45	13	17.02	13	18.25	Norwegian	Caucasian Oil Co	390.0	55.9	18.0	Hamburg,Germany	Los Angeles, Calif	Ballast		5,983	3,856
Hegira	13	8.15	13	9.50	13	18.36	13	20.00	American	Argonaut S. S. Co	440.0	56.0	28.0	Baltimore, Md	Seattle, Wash	Iron, steel	10,329	8,353	6,113
Reynolds	13	2.40	13	11.00	13	18.42	14	6.23	British	N. Z. Shipping Co	407.0	53.5	18.8	Montreal, Canada	Wellington, N. Z	General	3,700		
El Salvador	12	11.28	13	12.28	13	19.18	14	11.46	American	Panama Mail S. S. Co	360.0	51.6	22.7	New York, N. Y	San Francisco, Cal	Coffee, steel	2,438	5,710	4,023

[1] Tanker. [6] Balboa for dry docking. [7] Submarine. [8] Steel, cotton, and sulphate ammonia.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Lemuel Burrows	6	16.30	7	6.27	7	15.00	7	15.00	American	Mystic S. S. Co	437.2	63.7	30.0	Seattle, Wash	Boston, Mass	Lumber	10,500	9,105	6,004
West Mingo	7	2.00	7	7.04	7	16.15	7	16.15	American	States S. S. Co	410.0	54.4	24.6	Los Angeles, Calif	Philadelphia, Pa	Lumber, general	7,174	6,476	4,682
Castle Town	7	5.00	7	7.47	7	17.20	7	18.30	American	Charles Nelson & Co	321.7	50.0	21.4	Seattle, Wash	Baltimore, Md	Lumber, general	3,883	3,372	2,568
Paul Shoup [1]	7	8.30	7	9.16	7	18.35	7	18.35	American	Associated Oil Co	424.4	58.2	27.0	San Francisco, Cal	Bayonne, N. J	Gasoline	9,600	7,333	5,182

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.	Panama Canal tonnage.		
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Leme [9]	3	7.55	7	10 06	7	18 10	7	18 10	Italian	Nav. Libera-Triestina	450 0	57 0	28 0	Vancouver, B. C.	Trieste, Italy	General	9,242	8,805	6,497
Tsuyama Maru	7	6 45	7	13.50	7	21.00	8	9 39	Japanese	Nippon Yusen Kaisha	445 9	58 0	23 0	Manila, P. I.	Boston, Mass	(11)	7,839	7,956	5,681
Oakpark	7	10.15	7	14 54	7	22 50	7	22 50	American	Roosevelt S. S. Co., S. B.	402 6	53 2	23 0	Whyalla, Australia	Baltimore, Md	Ore, general	6,300	6,570	4,798
Pat [10]	7	8 00	7	8.00	7				American	Charles Morgan				Balboa, C. Z	Gatun Lake, C. Z.				
Rochester [11]			8	6.13	8	14 10	9	6 02	American	U. S. Navy	384 0	64 9	28 0	Balboa, C. Z	Cristobal, C. Z	Cruiser			
Marore	8	2.00	8	6 37	8	17 10	8	17.10	American	Ore S. S. Corp	550 3	72 2	34 6	Cruz Grande, Chile	Baltimore, Md	Iron ore	21,654	15,551	4,297
Teno	7	22 40	8	7 22	8	15 35	9	00 05	Chilean	Chilean Line	421 8	56 2	23 7	Talcahuano, Chile	New York, N. Y.	General	2,775	7,764	4,672
Caldas [9]	7	18 30	8	7 35	8	17 40			Colombian	South American Line	116 0	21 1	10 0	Buenaventura, Col.	Cristobal, C. Z.	General	255	211	124
Martha [9]	7	22 30	8	7 50	8	17.35			Norwegian	Chr. Hanneviz	181 0	30 0	10 6	Buenaventura, Col.	Cristobal, C. Z	Ballast		780	504
Feltore	8	5.05	8	8.09	8	18 20	8	18 20	American	Ore S. S. Corp	449 1	57 2	30 0	Cruz Grande, Chile	Baltimore, Md	Iron ore	11,811	7,808	5,139
Ecuador	8	15.15	9	6 30	9	13 30	10	00 35	American	Panama Mail S. S. Co.	380 6	48 7	22 0	San Francisco, Cal.	New York, N. Y.	Coffee, general	1,840	5,926	4,178
Hudson	8	15.30	9	6.43	9	15 00	10	1.15	French	French Line	395 2	50 7	25 0	Valparaiso, Chile	Le Havre, France.	General	6,608	5,748	4,225
Willboro	8	19.30	9	7.05	9	15 18	9	15 18	American	Williams Line	414 7	55 7	26 6	Seattle, Wash	New York, N. Y.	(11)	9,500	7,717	5,763
Wido	9	00.50	9	7.39	9	19 05	10	1 45	American	Roland Line	393 4	54 0	25 6	Corral, Chile	Hamburg, Germany	General	8,181	6,585	4,631
Zenon	9	1.20	9	8.05	9	18 25	10	11 25	French	French Line	425 0	55 0	26 6	Vancouver, B. C.	Le Havre, France.	General	8,084	6,982	4,834
Nebraskan	9	4.43	9	8.45	9	19 05	9	19 05	American	Amer.-Hawaiian Line	471 2	59 1	24 0	Portland, Oreg	Boston, Mass	General	6,817	9,032	6,638
Chilore	10	2.00	10	6.05	10	18 25	10	18.25	American	Ore S. S. Corp	549 6	72 2	34 3	Cruz Grande, Chile	New York, N. Y	Iron ore	20,000	14,538	9,348
Bolivar [1] [12]	1	14.00	10	6 46	10	14 10	10	14 10	Venezuelan	Venezuela Gulf Oil Co.	307 0	51 0	13 0	Balboa, C. Z	Maracaibo, Venez	Ballast			
Horace Luckenbach	9	15 50	10	7.12	10	16.05	10	16 05	American	Luckenbach Line	445 0	58 0	25 3	Portland, Oreg	Boston, Mass	General	6,370	8,699	6,363
Gracia	9	18.30	10	7 35	10	19 20	10	19.20	British	Donaldson Line	412 4	54 2	28 6	Vancouver, B. C.	Glasgow, Scotland	General	6,714	6,809	4,842
Drechtdijk	10	4.40	10	7.47	10	16.45	10	19 30	Dutch	North Pacific Coast Line	485 5	62 0	28 6	Vancouver, B. C.	Rotterdam, Holland	General	8,957	10,793	7,619
Benenuachan	10	7.40	10	8.30	10	20.25	10	21 20	British	Wm. Thomson & Co	429 0	53 9	27 6	Portland, Oreg	London, England	(15)	8,000		
Cali	10	8.45	10	9.53	10	21 00			German	Roland Line	216 5	32 9	13 6	Guayaquil, Ecuad'r	Cristobal, C. Z	Cacao, coffee	461	1,105	698
Santa Isabel	10	7.55	10	14 35	10	21 45	10	21 45	American	American & Cuban Line	251 0	43 6	22 6	Hilo, T. H	New York, N. Y.	Sugar	3,321	2,833	1,740
L-55 [10]			10		10				American	U. S. Army				Balboa, C. Z	Cristobal, C. Z				
Otterpool	10	16.10	11	6.34	11	14 45	12	5.25	British	Sir R. Ropner & Co	390 0	55 0	22 0	Chemainus, B. C	St. Johns, N. B	Lumber	6,580	5,926	4,362
Key West	10	21.00	11	7.10	11	14 50	11	14 50	Norwegian	Knut Knutsen	381 4	53 9	23 4	Tocopilla, Chile	Azores [17]	Nitrates	6,600	5,585	4,157
Alkmaar	10	21.50	11	7.45	11	16.15	11	19.00	Dutch	Royal Neth. S. S. Co.	447 2	62 7	28 4	Valparaiso, Chile	Hamburg, Germany	Nitrates, general	10,455	9,505	6,644
Hegre	6-30	10.30	11	9.08	11	17 10	11	23.15	Norway	Knut Knutsen	249 9	33 5	12 0	Buenaventura, Col.	Europe	Ballast		1,581	1,000
Hague Maru	10	10.35	11	12.58	11	19.50	12	1 57	Japanese	Osaka Shosen Kaisha	407 2	50 8	22 5	Hongkong, China	New York, N. Y.	(16)	4,496	6,533	4,772
Taranaki [9]	11	5 30	11	14 14	11	21 35	11	21 35	British	Shaw, Savill & Albion	483 0	64 2	24 0	Gladstone, N. Z	London, England	Frozen, general	5,976	11,706	8,320
Santa Rita	11	20 55	12	6 24	12	13.05	12	23 13	American	Grace Line	370 0	53 2	20 1	Valparaiso, Chile	New York, N. Y.	General	1,442	6,254	4,099
Abadan [1] [9]	11	20.00	12	6.55	12	14 15	12	14.15	Swedish	Concordia S. S. Co	417 6	55 1	26 0	Los Angeles, Calif.	Land's End, Eng. [17]	Gasoline	8,366	6,362	4,245
Esparta	11	17.05	12	7.05	12	15 25	13	15.52	American	United Fruit Co	330 6	44 6	18 7	San Francisco, Cal.	Port Limon, C. R.	General	694	3,683	2,373
Itauri	11	18.00	12	7.40	12	17 00	12	22 05	German	Hamburg-American Line	438 6	53 6	24 4	Valparaiso, Chile	Hamburg, Germany	General	8,288	7,004	5,017
Oroya	12	6.40	12	8.09	12	16.10	12	23.58	British	Pacific Steam Nav. Co	525 3	62 9	25 4	Talcahuano, Chile	Liverpool, England	General	6,544	13,137	9,067
Benvorlich	11	21.50	12	8.38	12	17.35	12	19.20	British	William Thomson & Co.	400 6	52 2	25.0	Astoria, Oreg	Rotterdam, Holland	Wheat, general	7,300	5,770	4,073

[1] Tanker. [9] Motor ship. [10] Launch. [11] Cruiser. [12] South, July 1 for dry docking. [15] Wheat, pulp, lumber. [16] Rice, bean, oil, general. [17] For orders. [11] Sugar, wood, oil, general. [14] Copper, lumber, general.

Joseph Seep [1]	12	00 10	12	9.14	12	17.50	12	17.50	American	Standard Shipping Co.	429.3	59.2	26.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,500	7,825	5,616
Illinois [1]	12	4 40	12	9.30	12	18 15	12	18 15	American	The Texas Co	416.8	56.1	25.6	Wilmington, Calif.	New York, N. Y.	Gasoline	7,615	7,150	5,330
San Fernando [1]	12	9 10	12	9.59	12	20.20	12	20 20	British	Anglo-Mexican Pet. Co.	530.4	69.4	22.0	Antofagasta, Chile.	Pto. Mexico, Mex.	Ballast		13,266	9,609
City of San Francisco [2]	11	20.37	12	11.12	12	19.30			Panaman	Panama Mail S. S. Co.	296.9	45.9	19.0	San Francisco, Cal.	Cristobal, C. Z.	([18])	1,225	3,848	2,606
Remuera	12	00.40	12	12.08	12	18 45	12	19 15	British	N. Z. Shipping Co	485.0	62.2	22.9	Wellington, N. Z.	London, England	Frozen, general	3,736	11,911	8,945
Panaman	12	12.00	12	12.52	12	21.15	12	21 15	American	Amer.-Hawaiian Line	407.7	53.7	25.0	Los Angeles, Calif.	New York, N. Y.	General	6,188	7,098	5,065
Annie Johnson [9]	12	10.50	12	13.46	12	22 50	13	21 45	Swedish	Johnson Line	392.0	52.6	25.9	San Francisco, Cal.	Stockholm, Swed'n.	General	5,601	6,650	4,919
Steelore	13	4.30	13	6.31	13	15.25	13	15.25	American	Ore S. S. Corp	550.3	72.2	33.9	Cruz Grande, Chile	New York, N. Y.	Iron ore	20,000	15,551	4,297
Charles R. McCormick	12	17.30	13	6.41	13	15.45	13	15.45	American	McCormick S. S. Co	402.4	53.2	26.0	Seattle, Wash.	Baltimore, Md.	Lumber, general	7,851	7,082	5,167
Gen. G. W. Getty			13	6.41	13	15 50	14	8.00	American	U. S. Army	98 0	22.0		Balboa, C. Z	Cristobal, C. Z.	Tug			
Georgie	12	17 35	13	7 24	13	16 35	14	18.50	French	French Line	410.0	52.7	26.2	Vancouver, B. C.	Le Havre, France.	General	7,626	6,830	4,932
Salvador	12	22.20	13	7.40	13	16 55			British	Pacific Steam Nav. Co.	215 0	33.5	15.0	Champerico, Guat.	Cristobal, C. Z.	([19])	618	1,270	735
Argon	1	15.45	13	7.30	13	17 00	13	21 05	British	Jas. L. Detweiler	120.0	21 5	12.9	Ensenada, Mexico	Antwerp, Belgium	Ballast			
Bohemian Club [1]	13	3 30	13	8 30	13	17 25	13	17.25	American	Atlantic Refining Co	425.0	57.2	26.4	Los Angeles, Calif	Philadelphia, Pa.	Gasoline	9,269	7,204	4,739
Herman Frasch.	13	3 40	13	9 10	13	18 30	13	18 30	American	Union Sulphur Co	356 0	51.6	25.0	Westport, Oreg.	Poughkeepsie N. Y.	Lumber	5,300	5,349	2,950
Emil Kirdorff	13	5 50	13	10 06	13	18.18	14	1 25	German	Hamburg-AmericanLine	409.8	55 8	23.0	Corral, Chile	Hamburg, Germany	General	6,348	7,141	5,468
Heffron	13	10 00	13	11 01	13	20 00	13	20 00	American	Heffron S. S. Co.	440.0	56 0	25 0	Everett, Wash.	Baltimore, Md.	Lumber	9,750	8,312	6,097

[1] Tanker. [18] Dynamite, coffee, hides. [19] Wood, coffee, sugar.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
July 7	Annetta I. [20]	A. Tagarapulos	Colon, R. P.
July 7	Ulua	United Fruit Co	Port Limon, C. R.
July 7	No. 9776 [21]	Pan-American Airways	Curacao via wayports.
July 7	Anachucuna [20]	United Fruit Co	Colon, R. P.
July 7	Annetta I. [20]	A. Tagarapulos	Colon, R. P.
July 8	No. 8044 [21]	Pan-American Airways	Guayaquil via wayports.
July 8	No. 9635 [21]	Pan-American Airways	Managua via David.
July 8	Toloa	United Fruit Co	New York via Habana.
July 9	Flandre	French Line	Havre via wayports.
July 9	William M [22]	G. I. Bryan	Colon, R. P.
July 9	Isle of Pines [20]	Colon Import & Export Co	Colon, R. P.
July 9	Inapaquina [20]	United Fruit Co	Colon, R. P.
July 10	Venezuela	Royal Neth. S. S. Co	Amsterdam via wayports.
July 10	Santa Marta	United Fruit Co	New York via Kingston.
July 10	Lizzie D. Peabody [23]	M. P. Martinez	Colon, R. P.
July 10	Darien C-35 [21]	Scadta Airplane Co	Barranquilla, Colombia.
July 10	Magdalena	Hamburg-American Line	Hamburg via wayports.
July 11	Camden	United Fruit Co	Curacao, D. W. I.
July 11	Suriname	United Fruit Co	New Orleans, La.

* DEPARTURES.

Date.	Vessel.	Line.	For—
July 7	Inapaquina [20]	United Fruit Co	Colon, R. P.
July 7	Ulua	United Fruit Co	New York via Habana.
July 7	Anachucuna [20]	Unitd Fruit Co	Colon, R. P.
July 7	Annetta I. [20]	A. Tagarapulos	Colon, R. P.
July 7	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
July 7	Waunta	Standard Fruit & S. S. Co	Puerto Cabezas.
July 7	Cristobal	Panama R. R. S. S. Line	New York via Haiti.
July 7	Southern Star No. 1283 [21]	American International Airways.	Talara, Peru.
July 8	Heredia	United Fruit Co	New Orleans via wayports.
July 9	No. 9688 [21]	Pan-American Airways	Managua via David.
July 9	No. 9776 [21]	Pan-American Airways	Curacao via Colombia.
July 9	Atlas	Royal Neth. S. S. Co	Curacao, D. W. I.
July 9	William M. [22]	G. I. Bryan	Bluefields, Nicaragua.
July 9	Annetta I. [20]	A. Tagarapulos	Colon, R. P.
July 10	Inapaquina [20]	United Fruit Co	Colon, R. P.
July 10	Venezuela	Royal Neth. S. S. Co	Port Limon, Costa Rica.
July 10	Toloa	United Fruit Co	Port Limon, Costa Rica.
July 11	Flandre	French Line	Havre via wayports.

[20] Motor boat. [21] Air mail carrier. [22] Schooner. [23] Motor schooner. * Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.

Date.	Vessel.	Line.	From—
July 11	Swiftlight	C. D. Mallory & Co	Curacao, D. W. I.
July 11	No. 9688 [24]	Pan-American Airways	Managua via David.
July 11	No. 9776 [24]	Pan-American Airways	Curacao via wayports.
July 12	Coppename	United Fruit Co	Bocas, R. P.
July 12	Amapala	Standard Fruit & S. S. Co	New Orleans via Habana.
July 12	Venezuela	Royal Nether. S. S. Co	Port Limon, Costa Rica.
July 12	Darien C-35 [24]	Scadta Airplane Co	Barranquilla, Colombia.
July 12	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
July 12	Anachucuna [25]	United Fruit Co	Colon, R. P.
July 12	Annetta I. [25]	A. Tagarapulos	Colon, R. P.
July 12	Inapaquina [25]	United Fruit Co	Colon, R. P.
July 12	Nora B. [26]	H. Blackwood	Colon, R. P.
July 12	Darien C-35 [24]	Scadta Airplane Co	Balboa, C. Z.
July 13	Mayari	United Fruit Co	New York via wayports.
July 13	Magdalena	Hamburg-American Line	Port Limon, Costa Rica.
July 13	Cartago	United Fruit Co	New Orleans and Habana
July 13	No. 9685 [24]	Pan-American Airways	Managua via David.
July 13	St. Therese	United Fruit Co	New Orleans and wayp'ts.

* DEPARTURES.

Date.	Vessel.	Line.	For—
July 11	No. 9685 [24]	Pan-American Airways	Managua via David.
July 11	Darien C-35 [24]	Scadta Airplane Co	Barranquilla, Colombia.
July 11	Santa Marta	United Fruit Co	New York via wayports.
July 11	Magdalena	Hamburg-American Line	Port Limon, Costa Rica.
July 11	Camden	United Fruit Co	Curacao via Bocas.
July 12	Suriname	United Fruit Co	Puerto Colombia.
July 12	No. 8044 [24]	Pan-American Airways	Guayaquil via wayports.
July 12	Coppename	United Fruit Co	New Orleans, La.
July 12	Darien C-35 [24]	Scadta Airplane Co	Balboa, C. Z.
July 12	Anachucuna [25]	United Fruit Co	Colon, R. P.
July 12	Inapaquina [25]	United Fruit Co	Colon, R. P.
July 12	Annetta I. [25]	A. Tagarapulos	Colon, R. P.
July 13	Darien C-35 [24]	Scadta Airplane Co	Barranquilla, Colombia.
July 13	No. 9688 [24]	Pan-American Airways	Managua via David.
July 13	Swiftlight	C. D. Mallory & Co	Curacao, D. W. I.
July 13	Amapala	Standard Fruit & S. S. Co	New Orleans and wayp'ts.
July 13	Lizzie D. Peabody [27]	M. P. Martinez	Colon, R. P.
July 13	Nora B. [26]	H. Blackwood	Bluefields, Nicaragua.

[24] Air mail carrier. [25] Motor boat. [26] Motor schooner.

PORT OF BALBOA.

July 6	San Luis [27]	Chiriqui Land Co	Pto. Armuelles, R. P.
July 11	Rakuyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile.
July 11	Frost [28]	West India Oil Co	Talara, Peru.
July 12	Dos Hermanos [27]	A. Valdez	Bayano River, R. P.
July 12	Sambu [27]	Hans Elliot	Bayano River, R. P.
July 12	A. B. De Obarrio [27]	Pacific Fruit Co	Bayano River, R. P.
July 11	Rakuyo Maru	Nippon Yusen Kaisha	Hongkong, China.
July 12	Dos Hermanos [27]	A. Valdez	Panama Bay, R. P.
July 12	Sambu [27]	Hans Elliot	Panama Bay, R. P.
July 12	A. B. De Obarrio [27]	Pacific Fruit Co	Panama Bay, R. P.

[27] Motor schooner. [28] Motor ship. * Other than ships passing through the Canal.

Panama Canal Traffic During the Fiscal Year 1929, Segregated by Nationality of Vessels.

Commercial traffic through the Panama Canal in the fiscal year 1929, was made up of vessels of 23 nationalities. Transits of vessels of United States registry, totaling 2,700, exceeded those of any other nationality, with British, German, Norwegian, Japanese, Dutch, and Swedish following in the order named. With respect to net tonnage, Panama Canal measurement, the vessels of these 7 nationalities made up over 90 per cent of the traffic for the year.

The following statement shows the commercial traffic through the Canal during the fiscal year 1929, segregated according to registry of vessels, with the grand totals for the two preceding fiscal years:

Nationality.	Transits.	Panama Canal net tonnage.	United States equivalent net tonnage.	Registered gross tonnage.	Registered net tonnage.	Tolls.	Cargo.
							Long tons.
Belgian	17	89,695	73,360	115,276	$68,361	$83,757.04	101,419
British	1,783	8,994,526	6,757,674	11,056,382	6,803,306	8,025,045.81	8,331,221
Chilean	31	130,599	97,948	199,243	109,750	136,663.49	98,584
Colombian	101	39,032	34,725	59,151	35,741	41,652.43	38,262
Costa Rican	1	39	39	78	39	29.25	.....
Cuban	2	194	194	176	136	1,517.00	20
Danish	101	416,985	315,372	498,465	314,726	379,383.44	518,452
Danzig	30	187,403	156,651	265,773	150,043	167,731.28	183,844
Dutch	149	690,608	485,069	810,169	484,182	595,905.62	695,956
Finnish	7	16,314	14,513	17,733	13,831	16,860.00	25,000
French	115	534,505	422,359	676,780	413,544	532,777.65	530,763
German	402	1,405,385	993,361	1,649,844	988,903	1,222,181.38	1,482,279
Greek	67	261,540	191,618	298,205	185,132	218,427.77	299,104
Italian	83	492,472	369,112	624,404	378,758	446,623.34	334,483
Japanese	155	775,005	661,902	980,177	649,152	810,215.74	980,041
Mexican	1	(1)	(1)	(1)	(1)	613.50	.....
Norwegian	340	1,280,184	964,441	1,586,118	954,362	1,122,895.34	1,505,366
Panaman	47	113,097	79,575	142,786	90,748	91,133.63	97,644
Peruvian	48	109,100	61,774	159,375	82,512	77,183.43	69,573
Spanish	32	117,528	97,902	160,144	98,036	116,720.34	95,405
Swedish	144	618,558	455,728	1,104,826	547,120	520,155.43	845,664
United States	2,700	13,325,753	10,375,012	16,765,317	10,345,886	12,299,584.70	14,075,731
Yugoslav	57	239,272	185,518	294,370	186,049	22,319.30	354,195
Totals, 1929	6,413	29,837,794	22,793,847	37,464,792	22,900,317	27,127,376.91	30,663,006
Totals, 1928	6,456	29,458,634	22,863,796	37,202,874	22,847,689	26,944,499.77	29,630,709
Totals, 1927	5,475	26,227,815	20,565,596	33,555,817	20,618,253	24,228,830.11	27,748,215

[1] Displacement tonnage.

As related to the total traffic and as compared with the fiscal year 1928, the classification by nationality is more clearly shown in the following tabulation in which the percentage of the fiscal year's traffic (1929 and 1928) is substituted for actual figures. In this tabulation figures are shown only for those nationalities contributing 500,000 or more net tons, Panama Canal measurement:

Nationality.	Number of vessels.		Panama Canal net tonnage.		Tolls.		Tons of cargo.	
	1929.	1928.	1929.	1928.	1929.	1928.	1929.	1928.
United States	42.1	42.6	44.6	46.7	45.4	46.8	45.5	48.1
British	27.8	28.5	30.1	30.5	29.6	30.0	27.2	27.2
German	6.3	4.8	4.7	3.4	4.5	3.3	4.8	4.0
Norwegian	5.3	4.8	4.3	4.0	4.1	3.9	4.9	4.3
Japanese	2.4	2.9	2.6	3.1	3.0	3.5	3.2	3.5
Dutch	2.3	2.1	2.3	2.2	2.2	2.1	2.2	2.1
Swedish	2.2	1.7	2.1	1.7	1.9	1.5	2.8	2.4
All others	11.6	12.6	9.3	8.4	9.3	8.9	9.4	8.4
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Transits of vessels of both the United States and Great Britain, the nations contributing the larger portion of the Canal's traffic, declined in 1929, there having been 2,700 and 1,783 transits, respectively, as compared with 2,753 and 1,842 respectively, in 1928. German shipping, which has been increasing rapidly from year to year, had 402 transits in 1929 as compared with 316 in 1928. Dutch and Swedish shipping also showed slight increases over the previous year, while Japan registered a slight decrease.

Consideration by League of Nations Committee of Aids to Navigation.

THE PANAMA CANAL RECORD has received from the Information Section of the League of Nations a copy of the general report and proposals of the Technical Committee for Buoyage and Lighting of Coasts. The main efforts of the committee are summarized in a number of proposals for signals which might be adopted as standardized or unified practice throughout the maritime world. The proposals are to be submitted to governments for examination in anticipation of an international conference on the subject, scheduled for the latter months of 1930.

"Scadta" Extends Service.

Announcement has been made by the local agents of the Sociedad Colombo-Alemana de Transportes Aereos ("Scadta") of the extension of its mail and passenger service from Guayaquil, Ecuador, formerly the southern terminal of the service, to Paita, Peru. According to the new itinerary, passengers embarking in the Scadta plane, which leaves every Thursday from Cristobal, will arrive in Guayaquil on the following day, and in Paita on Saturday morning.

The inauguration of the first service instituted by this concern between the Isthmus and Colombia was on April 17, 1929, announcement of which appeared in THE PANAMA CANAL RECORD of that date.

Notice to Mariners.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *July 16, 1929.*

No. 563.

The following is quoted from H. O. Notice to Mariners No. 27, dated July 6th:

Panama, Limon Bay, Colon, Naval Radio Station to be moved. The Colon Naval Radio Station (NAX) is being dismantled and will be reestablished in the vicinity of Fort Davis Station, the north tower in latitude 9° 17′ 45.4″ N., longitude 79° 54′ 32.4″ W., and the south tower in latitude 9° 17′ 40″ N., longitude 79° 54′ 33.4″ W.

The towers will each be 200 feet high above the ground and each will carry a fixed red light at one-third and two-thirds of its height and a flashing red light at the top.

West Indies, Caribbean Sea, Navassa Island Light, Characteristic. The light on Navassa Island consists of two sets of burners, each set working independently of the other. One light shows 1 flash every 15 seconds, flash 2.5 seconds, eclipse 12.5 seconds; the other shows 1 flash every 2 seconds, flash 0.3 seconds, eclipse 1.7 seconds. In case one light is damaged and rendered inoperative the other will continue to function. Each light has a luminous power of 7,500 candles.

Approximate position: 18° 24′ 10″ N., 75° 00′ 50″ W.

Colombia, North Coast, Puerto Cispata, Buoys Reported Missing. The second officer of the Panaman vessel *Marari* reports that on June 4, 1929, the two buoys shown on H. O. Chart 986 in Puerto Cispata were missing.

Nicaragua, West Coast, Corinto Harbor Approach, Nonexistence of Shoal Depth. The commanding officer of the U. S. S. *Galveston* reports that the 25-foot spot shown on H. O. Chart 2604 at a distance of 1,270 yards 286° from Cordon Head Lighthouse does not exist, the least depth found at this point being 29.2 feet.

H. BURGESS,
Governor.

Tanker Traffic Through the Panama Canal in June, 1929.

During the month of June, 1929, 99 tank ships transited the Canal with an aggregate net tonnage, Panama Canal measurement, of 540,648, on which tolls of $478,203.79 were collected. Cargo amounted to 525,934. In point of net tonnage, tanker traffic increased 12 per cent over the same traffic for the corresponding month a year ago, while cargo tonnage increased 20.7 per cent over the cargo tonnage of June, 1928.

Tank ships comprised 19.7 per cent of the total commercial transits through the Canal during the month; made up 23 per cent of the total Panama Canal net tonnage; were the source of 22.5 per cent of the tolls collected; and carried 21.7 per cent of the total cargo in transit through the Canal.

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the month of June, 1929, segregated by direction of transit and nationality of vessels, are shown in the following tabulations, with comparative totals, for the two preceding months and for June, 1928:

Nationality.	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
British	14	79,771	$61,424.75	25,500
Danzig	1	6,127	4,411.44	.....
Dutch	1	5,065	3,646.80	.....
German	1	4,186	3,013.92	.....
Norwegian	2	8,657	6,233.04	.....
United States	33	180,862	137,480.09	34,559
Totals, June, 1929	52	284,668	216,210.04	60,059
Totals, May, 1929	52	286,387	210,607.65	19,679
Totals, April, 1929	39	215,199	159,166.70	22,876
Totals, June, 1928	51	270,917	207,154.95	53,676
Pacific to Atlantic.				
British	8	38,844	42,302.50	78,139
Danish	1	5,623	5,837.50	9,312
Danzig	1	6,127	6,585.00	11,375
Dutch	1	3,132	3,450.00	5,984
French	1	5,050	5,445.00	9,018
German	1	4,574	4,790.00	8,431
Norwegian	4	21,890	23,360.00	40,636
Swedish	1	3,335	3,958.75	7,068
United States	29	167,405	166,265.00	295,912
Totals, June, 1929	47	255,980	261,993.75	465,875
Totals, May, 1929	49	252,053	261,846.40	453,684
Totals, April, 1929	43	229,158	231,886.59	397,783
Totals, June, 1928	39	211,872	215,261.95	382,036

Of the total tanker traffic shown above, the following is a summary of the vessels giving Los Angeles as their port of origin or destination, together with the totals for the two preceding months, and for June, 1928:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
To Los Angeles.				
June, 1929	38	204,823	$150,165.87	10,212
May, 1929	41	227,722	165,842.76	1,277
April, 1929	22	121,872	87,747.84	.....
June, 1928	37	202,294	147,178.32	4,641
From Los Angeles.				
June, 1929	40	215,723	218,943.75	384,793
May, 1929	35	181,003	186,620.50	322,997
April, 1929	27	149,491	150,532.45	258,776
June, 1928	27	141,569	144,231.95	261,233

Tanker Traffic Through the Panama Canal During Fiscal Year 1929.

During the fiscal year ended June 30, 1929, 1,083 tank ships transited the Canal, carrying 5,512,481 tons of cargo, principally mineral oil products. These vessels had a combined net tonnage, Panama Canal measurement, of 5,844,263, and were the source of $5,145,632.19 in tolls.

Tank ships comprised 16.8 per cent of the total commercial transits; made up of 19.6 per cent of the total Panama Canal net tonnage; paid 18.9 per cent of the total tolls collected; and carried 17.9 per cent of the total cargo in transit through the Canal.

Tanker traffic through the Canal in 1929 was lower than in 1928, both relatively and in actual traffic, there having been 1,121 transits in 1928, representing 6,243,969 net tons, paying $6,436,437.16 in tolls, and carrying 5,829,722 tons of cargo.

Expressed in terms of percentage, the following tabulation shows the volume of tanker traffic through the Canal in the past four years:

	Per cent of total traffic.			
	No. of transits.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Fiscal year 1929	16.8	19.6	18.9	17.9
Fiscal year 1928	17.3	21.2	20.1	19.7
Fiscal year 1927	24.2	29.1	27.4	26.1
Fiscal year 1926	20.9	25.6	24.5	23.3

The number, aggregate net tonnage, tolls, and cargo of tank ships transiting the Canal during the fiscal year 1929, segregated by direction of transit and nationality of vessels, are shown in the following tabulation, with comparative totals for the previous three fiscal years:

	No. of vessels.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific.				
Belgian	2	9,952	$9,292.72	8,100
British	134	681,807	516,935.51	108,541
Danish	6	33,620	24,206.40	
Danzig	13	80,972	58,299.84	
Dutch	7	28,665	21,953.26	7,124
French	9	41,350	30,904.80	6,000
German	6	25,993	18,714.96	
Norwegian	35	169,266	124,838.43	15,922
Panaman	2	13,300	9,576.00	
Peruvian	1	144	103.68	
Swedish	5	25,829	18,596.88	
United States	326	1,835,526	1,353,359.71	139,085
Yugoslav	1	4,189	3,016.08	
Totals	547	2,950,613	2,183,798.27	284,772
Pacific to Atlantic.				
Belgian	2	9,952	11,420.00	19,100
British	119	602,923	633,097.67	1,077,089
Danish	5	27,092	28,101.25	50,793
Danzig	16	100,304	105,020.00	183,844
Dutch	7	28,665	30,943.75	52,253
French	7	33,143	35,891.25	59,902
German	5	21,807	23,180.00	42,083
Norwegian	35	169,048	179,199.95	311,088
Panaman	1	6,450	7,062.50	12,772
Swedish	6	31,214	33,002.50	58,665
United States	333	1,863,052	1,874,915.05	3,360,120
Totals	536	2,893,650	2,961,833.92	5,227,709
Grand totals, fiscal year 1929	1,083	5,844,263	5,145,632.19	5,512,481
Grand totals, fiscal year 1928	1,121	6,243,969	5,436,437.16	5,829,722
Grand totals, fiscal year 1927	1,324	7,624,112	6,658,806.90	7,250,579
Grand totals, fiscal year 1926	1,090	6,343,240	5,626,167.93	6,073,779

Of the 5,227,709 tons of tanker cargo from the Pacific, approximately 83 per cent originated in California and the remaining 17 per cent (with the exception of a small number of cargoes of molasses and coconut oil) originated in Peru and Ecuador. About 65 per cent of this tonnage was destined to the United States, 21 per cent to Europe, and the balance to Cristobal, West Indies, Canada, Central America, and South Africa. The larger part of the tanker cargoes from the Atlantic came from Texas, Mexico, Colombia and Venezuela and were bound for China, Canada, and South America.

Of the total mineral oil tonnage carried in tankers through the Canal in 1929, approximately 65 per cent was gasoline, benzine or naphtha; 20 per cent crude; and the remainder consisted of gas and fuel oils, lubricating oils, and kerosene.

Prices of Miscellaneous Supplies at Panama Canal Storehouses.

The following are prices to individuals and companies including the 25 per cent surcharge, effective July 15, 1929:

Commodities.	Unit.	Price.
Brass, bar, average	Lb.	$0.22
Brass, sheet, average	Lb.	.35
Bronze, Tobin, average	Lb.	.21
Gasoline, motor grade	Gal.	.14½
Metal, yellow	Lb.	.24
Oakum, Navy, spun	Lb.	.15
Oakum, Navy, unspun	Lb.	.17
Oil, Diesel, at Cristobal only, in bulk, no surcharge	Bbl. of 42 gals.	1.80
Oil, fuel, at Balboa and Cristobal, in bulk, no surcharge	Bbl. of 42 gals	1.50
Oil, ammonia, cylinder	Gal.	.28
Oil, burning, Colza	Gal.	1.06
Oil, engine, gas, in drums, Gulftriton Med. No. 2135	Gal.	.43
Oil, engine, gas, extra heavy, in cases, Gulftriton No. 2250	Gal.	.53
Oil, engine, gas, extra heavy, in drums, Gulftriton No. 2250	Gal.	.50
Oil, kerosene, in drums	Gal.	.11
Oil, marine engine	Gal.	.54
Paint, lead, white, dry	Lb.	.14
Paint, lead, white, in oil	Lb.	.13
Paint, zinc oxide, dry	Lb.	.10
Paint, zinc oxide, in oil	Lb.	.13
Grease, gear, chain and wire rope, lubricating	Lb.	.05
Grease, yellow, cup, No. 3	Lb.	.08
Grease, yellow, cup, No. 5	Lb.	.09
Soda, ash	Lb.	.03
Waste, cotton, colored	Lb.	.15
Waste, cotton, white	Lb.	.16

Price of Coal at the Canal.

Coal is obtainable from the plants operated by The Panama Canal at the prices shown below, effective June 15, 1928:

	Cristobal-Colon.	Balboa.
1. For steamships, including warships of all nations, delivered from coaling plants, per ton of 2,240 pounds, except as provided in paragraph 2	$8.00	$11.00
2. For vessels transiting the Canal that are directed by The Panama Canal to take coal at Balboa on account of the condition of the plants, the quantity available, or for the purpose of expediting traffic		8.00
3. For steamships, including warships of all nations, when delivered from lighters in quantities of 50 tons or more, per ton of 2,240 pounds	9.00	12.00
4. For steamships, including warships of all nations, when delivered from lighters in quantities of less than 50 tons, with minimum charge for 20 tons and with maximum charge not to exceed that for 50 tons at prices specified in paragraph 3, per ton of 2,240 pounds	11.00	14.00

Commercial Traffic Through the Panama Canal in June, 1929, by Trade Routes.

The following tabulation shows the commercial traffic through the Canal during the month of June, 1929, classified according to trade routes and nationality of vessels in each trade route, together with corresponding totals for June, 1928 and 1927. The amount of cargo shown is the amount carried by vessels operating over the respective trade routes and in some cases includes cargo having other destinations:

ATLANTIC TO PACIFIC.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
United States intercoastal: ..							
United States	89	453,429	349,147	560,559	349,779	$392,133.92	283,966
East coast of United States to west coast of South America:							
British	9	32,114	28,857	57,060	29,936	28,383.07	14,780
Chilean	1	4,672	3,433	7,310	3,976	4,291.25	2,908
German	1	1,167	998	1,428	813	1,247.50	352
Japanese	1	4,611	4,223	5,838	4,219	3,319.92	.....
Norwegian	1	2,798	2,020	3,194	1,987	2,525.00	800
Peruvian	1	1,529	1,483	2,155	1,169	1,834.80	1,943
Swedish	3	10,430	5,050	16,937	5,439	8,053.99	542
United States	15	74,636	61,848	101,119	61,019	62,021.60	31,783
Totals	32	131,957	107,912	195,041	108,558	111,677.13	53,108
Europe to west coast of South America:							
Belgian	1	4,792	4,142	6,512	4,038	5,177.50	6,638
British	5	30,057	24,335	39,951	24,532	30,418.75	20,228
Danzig	1	6,127	5,268	8,939	5,007	4,411.44	.....
Dutch	2	11,786	6,713	11,343	6,628	8,391.25	13,018
German	5	24,997	18,684	29,822	18,400	23,355.00	28,025
Italian	3	17,139	11,716	21,794	13,099	14,645.00	2,931
Norwegian	3	9,622	7,874	13,128	7,841	8,220.67	8,345
Peruvian	1	343	335	465	276	251.25	.....
Yugoslav	1	4,163	3,593	5,687	3,562	4,491.25	6,660
Totals	22	109,026	82,660	137,641	83,383	99,362.11	85,845
East coast of United States to Far East:							
British	5	27,689	17,366	29,120	17,119	21,707.50	26,943
Danish	2	5,072	3,419	5,733	3,456	4,273.75	5,022
Japanese	5	24,561	20,611	30,874	20,229	25,584.35	34,012
Norwegian	2	9,068	4,985	8,384	4,952	6,231.25	14,093
United States	7	32,897	24,375	39,146	24,230	30,468.75	47,234
Totals	21	99,287	70,756	113,257	69,986	88,265.60	127,304
Europe to west coast of Canada:							
British	8	47,589	34,855	53,711	33,199	39,638.23	17,172
Danish	1	5,317	4,219	6,645	4,244	5,273.75	8,670
Dutch	1	7,551	5,776	9,399	5,814	7,220.00	4,577
French	2	10,643	9,061	12,360	7,394	11,326.25	7,705
German	2	13,634	8,881	14,518	8,851	11,101.25	10,894
Italian	1	6,025	5,056	7,098	4,498	6,320.00	1,990
Norwegian	2	9,846	8,190	13,339	8,310	10,237.50	8,537
Totals	17	100,605	76,038	117,070	72,310	91,116.98	59,545
Europe to west coast of United States:							
British	6	29,781	24,724	38,932	24,598	22,020.82	.....
Danish	1	4,790	2,720	4,665	2,785	3,400.00	7,800
Dutch	2	10,925	9,724	15,777	9,403	10,126.80	4,599
French	1	4,724	3,663	5,961	3,657	4,578.75	7,694
German	2	10,852	7,569	13,176	7,588	8,006.42	6,431
Norwegian	1	4,321	3,748	6,361	3,769	3,111.12	.....
Swedish	2	10,452	6,308	10,514	7,890	7,885.00	10,500
Totals	15	75,845	58,456	95,326	59,690	59,128.91	37,024
East coast of United States to Australasia:							
British	9	51,949	33,307	54,275	33,405	41,633.75	49,526
Swedish	1	3,528	2,417	4,104	3,128	3,021.25	5,914
United States	2	10,310	7,437	11,747	7,362	9,296.25	4,459
Totals	12	65,787	43,161	70,126	43,895	53,951.25	59,899

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Cristobal to west coast of South America:							
Colombian	3	411	390	647	384	$478.10	546
Dutch	1	742	294	780	323	367.50	138
German	6	5,230	3,395	6,523	3,506	4,243.75	1,739
Totals	10	6,383	4,079	7,950	4,213	5,089.35	2,423
Europe to Australasia:							
British	6	47,204	34,587	58,546	36,373	43,233.75	43,382
French	1	5,629	4,343	7,007	4,402	5,428.75	2,210
Totals	7	52,833	38,930	65,553	40,775	48,662.50	45,592
Cristobal to west coast of Central America:							
British	2	1,441	1,286	2,298	1,304	1,607.50	2,122
Colombian	1	307	302	405	308	368.40	500
Norwegian	2	1,110	908	1,587	873	1,135.00	1,985
Totals	5	2,858	2,496	4,290	2,485	3,110.90	4,607
East coast of United States to Philippine Islands:							
British	3	16,159	10,451	17,970	10,639	13,063.75	17,821
United States	1	6,183	5,780	7,717	5,791	7,225.00	8,987
Totals	4	22,342	16,231	25,687	16,430	20,288.75	26,808
East coast of Canada to Australasia:							
British	4	16,861	12,761	20,927	12,915	15,951.25	15,009
East coast of Central America to west coast of United States:							
United States	4	9,134	8,361	13,520	8,242	10,398.20	2,329
Foreign Vessels in ballast—United States intercoastal:							
British	3	21,454	19,126	31,967	19,620	15,479.67	.....
East coast of United States to Hawaiian Islands:							
United States	3	7,819	6,283	9,394	6,281	7,811.45	11,313
West Indies to west coast of United States:							
Danish	1	3,516	2,374	3,953	2,394	2,967.50	3,990
United States	2	7,699	6,216	10,228	6,193	5,543.28	.....
Totals	3	11,215	8,590	14,181	8,587	8,510.78	3,990
Around the World:							
United States	2	19,028	14,573	24,661	14,515	18,216.25	9,690
East coast of United States to west coast Canada:							
British	1	4,627	3,172	5,140	3,156	3,331.44	.....
United States	1	4,784	3,445	5,557	3,430	4,306.25	4,730
Totals	2	9,411	6,617	10,697	6,586	7,637.69	4,730
Canadian Intercoastal:							
British	2	8,255	6,576	11,239	6,929	8,220.00	2,010
East coast of Canada to west coast United States:							
British	2	8,839	6,208	10,153	6,142	6,544.81	4,340
Europe to west coast of Central America:							
German	2	7,227	4,683	8,332	4,798	5,853.75	7,080
East coast of South America to west coast Canada:							
Norwegian	1	4,375	2,431	4,000	2,485	3,038.75	1,411
United States	1	5,046	3,587	5,580	3,541	4,483.75	1,976
Totals	2	9,421	6,018	9,580	6,026	7,522.50	3,387
East coast of United States to west coast of Central America:							
Norwegian	1	1,716	1,449	2,289	1,355	1,811.25	1,339
East coast Canada to west coast South America:							
British	1	7,033	5,973	11,410	6,711	5,063.76	.....
West Indies to west coast of Canada:							
British	1	4,177	3,168	4,982	3,177	3,960.00	6,031

ATLANTIC TO PACIFIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West Indies to west coast of South America:							
British	1	9,609	8,309	13,056	8,335	$10,386.25	16,800
West Indies to Australasia:							
British	1	4,404	2,704	4,418	2,684	3,380.00	7,450
Africa to Australasia:							
British	1	4,166	2,612	4,212	2,548	3,265.00	6,800
Africa to Far East:							
British	1	4,615	2,678	4,392	2,649	3,347.50	7,500
Cristobal to west coast of United States:							
Panaman	1	2,663	1,383	2,461	1,384	1,728.75	3,485
Cristobal to Balboa:							
Panaman	1	54	51	86	50	63.75	72
Grand totals, June, 1929	272	1,287,393	977,989	1,604,457	981,038	1,117,940.01	899,386
Grand totals, June, 1928	270	1,257,739	946,939	1,547,357	948,858	1,079,160.72	765,234
Grand totals, June, 1927	247	1,158,119	896,347	1,460,310	896,671	999,889.89	708,569

PACIFIC TO ATLANTIC.

United States intercoastal:							
United States	79	411,950	316,018	509,620	316,202	$395,022.50	594,262
West coast of South America to east coast of United States:							
British	8	29,536	23,093	39,038	23,753	28,866.25	42,701
Chilean	1	4,705	3,466	7,310	3,976	4,332.50	3,011
German	2	6,619	4,597	6,995	4,129	5,700.15	9,706
Italian	1	4,180	3,926	4,901	3,132	4,907.50	7,044
Norwegian	2	5,378	4,529	6,173	4,111	5,661.25	10,200
Swedish	2	8,917	7,486	30,676	8,762	9,357.50	43,746
United States	14	52,329	42,072	73,344	41,423	52,384.45	108,966
Yugoslav	1	3,406	2,232	3,555	2,212	2,790.00	6,100
Totals	31	115,070	91,401	171,992	91,498	113,999.60	231,474
West coast of South America to Europe:							
British	6	40,459	30,546	51,026	31,597	38,182.50	38,808
Danzig	1	6,127	5,268	8,939	5,007	6,585.00	11,375
Dutch	3	18,957	10,474	18,035	10,888	13,092.50	26,130
Finnish	1	1,835	1,828	1,979	1,709	2,202.00	3,200
French	1	4,164	3,252	5,343	3,269	4,065.00	6,784
German	3	16,564	11,914	19,224	12,032	14,892.50	23,182
Greek	1	4,568	2,907	4,720	2,843	3,633.75	8,300
Italian	1	9,329	5,176	11,718	6,750	6,470.00	1,028
Norwegian	1	1,368	1,194	2,017	1,197	1,492.50	3,050
United States	1	4,389	3,795	5,731	3,512	4,743.75	8,380
Totals	19	107,760	76,354	128,732	78,804	95,359.50	130,237
West coast United States to Europe:							
British	8	34,054	26,118	42,785	26,136	32,647.50	61,029
Dutch	1	3,132	2,760	4,647	2,642	3,450.00	5,984
French	1	5,050	4,356	7,011	3,989	5,445.00	9,018
German	1	4,574	3,832	6,358	3,637	4,790.00	8,431
Norwegian	4	22,264	17,377	28,814	17,174	21,721.25	39,261
Swedish	2	8,195	5,948	10,616	7,689	7,435.00	12,143
United States	1	4,964	3,663	5,856	3,663	4,578.75	7,602
Totals	18	82,233	64,054	106,087	64,930	80,067.50	143,468
West coast of Canada to Europe:							
British	6	31,226	20,908	34,064	21,050	26,135.00	41,993
Danish	1	5,660	5,233	6,919	5,223	6,541.25	9,361
Dutch	1	7,056	4,547	7,310	4,495	5,683.75	9,351
French	1	4,936	3,385	5,751	3,555	4,231.25	7,716
German	4	23,307	16,174	26,884	16,365	20,217.50	30,773
Italian	1	4,013	3,303	5,493	3,241	4,128.75	7,000
Totals	14	76,198	53,550	86,421	53,929	66,937.50	106,194

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE.				Tolls.	Tons of cargo.
		Panama Canal net.	United States equivalent.	Registered gross.	Registered net.		
Philippine Islands to east coast of United States:							
British	1	4,612	3,540	5,848	3,563	$4,425.00	6,574
Danish	1	2,791	1,875	3,173	1,928	2,343.75	5,000
Japanese	4	20,639	17,435	25,723	17,112	21,614.30	30,030
Norwegian	1	4,134	3,214	5,242	3,264	4,017.50	7,500
United States	4	23,886	20,041	29,771	19,963	25,051.25	37,234
Totals	11	56,062	46,105	69,757	45,830	57,451.80	86,338
West coast of South America to Cristobal:							
Colombian	3	950	894	1,543	902	1,115.30	1,004
Dutch	2	1,484	588	1,560	646	735.00	419
German	4	3,491	2,260	4,347	2,334	2,825.00	2,187
Norwegian	1	504	423	732	391	362.88	.....
Swedish	1	1,513	1,307	1,600	1,054	1,633.75	1,082
Totals	11	7,942	5,472	9,782	5,327	6,671.93	4,692
Australasia to Europe:							
British	8	64,173	47,421	77,486	47,996	59,276.25	40,996
West coast of Canada to east coast of United States:							
British	5	22,916	15,921	25,269	15,879	19,901.25	24,724
Danish	1	4,418	3,585	5,702	3,583	4,481.25	7,800
Swedish	1	3,061	2,421	3,898	2,992	3,026.25	4,600
Totals	7	30,395	21,927	34,869	22,454	27,408.75	37,124
West coast of United States to east coast of Central America:							
United States	4	9,227	8,489	13,558	8,493	10,558.20	2,107
West coast of United States to Cristobal:							
British	1	5,162	4,579	7,417	4,524	5,723.75	9,560
Danish	1	5,623	4,670	7,691	4,719	5,837.50	9,312
Norwegian	1	5,071	4,342	7,313	4,307	5,427.50	9,200
United States	1	99	98	140	98	73.50	.....
Totals	4	15,955	13,689	22,561	13,639	17,062.25	28,072
West coast of Central America to Cristobal:							
British	3	2,063	1,900	3,436	1,906	2,375.00	2,184
Norwegian	1	606	485	855	482	436.32	.....
Totals	4	2,669	2,385	4,291	2,388	2,811.32	2,184
Canadian intercoastal:							
British	3	13,535	9,743	16,333	10,074	12,178.75	18,805
Hawaiian Islands to east coast of United States:							
United States	2	7,180	4,993	8,334	4,992	6,241.25	12,257
Australasia to east coast of United States:							
British	1	4,449	2,777	4,504	2,795	3,471.25	6,500
United States	1	5,167	3,816	6,094	3,816	4,770.00	7,627
Totals	2	9,616	6,593	10,598	6,611	8,241.25	14,127
Australasia to east coast of Canada:							
British	2	9,848	7,676	12,617	7,743	9,595.00	3,806
West coast of South America to Egypt:							
Greek	1	3,433	2,234	3,536	2,223	2,792.50	6,900
Yugoslav	1	3,969	3,178	4,995	3,214	3,972.50	7,575
Totals	2	7,402	5,412	8,531	5,437	6,765.00	14,475
West coast of South America to Canada:							
British	2	13,786	11,950	22,719	12,492	14,937.50	31,774
West coast of Central America to east coast of U. S.							
Norwegian	1	1,716	1,490	2,289	1,355	1,235.52	.....
West coast Central America to Europe:							
German	1	3,272	2,517	4,165	2,547	2,355.84	.....

PACIFIC TO ATLANTIC.—Continued.

Nationality.	No. of ships.	TONNAGE. Panama Canal net.	United States equivalent.	Registered gross.	Registered net.	Tolls.	Tons of cargo.
West coast of United States to Cristobal:							
United States	1	1,549	1,167	1,974	1,161	$1,458.75	664
Hawaiian Islands to Europe:							
Swedish	1	5,661	3,406	5,642	4,320	4,257.50	7,715
Far East to east coast of United States:							
Japanese	1	5,294	4,181	6,609	4,040	5,226.25	2,928
Far East to West Indies:							
Norwegian	1	4,284	2,507	4,333	2,494	3,133.75	7,450
West coast of Canada to West Indies:							
British	1	2,207	1,239	2,338	1,249	1,548.75	3,467
Balboa to Cristobal:							
Panaman	1	54	51	86	50	63.75	.....
Grand totals, June, 1929	231	1,065,038	809,790	1,341,724	815,965	1,009,865.96	1,524,616
Grand totals, June, 1928	211	970,126	750,666	1,230,149	751,298	937,050.37	1,374,331
Grand totals, June, 1927	208	994,807	777,474	1,285,036	783,842	970,488.08	1,520,528

United States Intercoastal Traffic by Commodities for June, 1929.

The following table shows the cargo carried through the Canal in the United States intercoastal trade, segregated by commodities and by direction, with the totals for June, 1929, and the totals for June, 1928 and 1927. Cargo statistics are compiled from cargo declarations submitted by masters of vessels, and in these declarations small items are frequently grouped under the designation of "General cargo." These statistics are accordingly not precise, but they are indicative of the kind and quantity of the cargo in transit through the Canal. These figures represent tons of 2,240 pounds, and are for the United States intercoastal trade only:

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Aeroplanes	34	.....	34
Agricultural implements	1,303	129	1,432
Alfalfa	.....	220	220
Alfalfa meal	.....	307	307
Ammonia	56	.....	56
Asbestos	191	.....	191
Asphalt	384	249	633
Automobiles	986	97	1,083
Automobile accessories	1,216	33	1,249
Bark, cascara	.....	73	73
Beans	15	1,151	1,166
Borax	.....	565	565
Bricks	32	.....	32
Burlap	147	90	237
Calcium carbide	28	.....	28
Camphor	.....	41	41
Canned goods:			
Fish	210	5,415	5,625
Fruit	296	11,535	11,831
Meat	37	30	67
Milk	20	610	630
Soup	1,451	.....	1,451
Vegetables	977	1,534	2,511
Miscellaneous	1,694	5,356	7,050
Carbon, black	176	.....	176
Celite filtercel	.....	337	337
Cement	846	.....	846
Charcoal	149	125	274
Chemicals	2,167	233	2,400
China and fire clay	255	.....	255
Coal	3,333	.....	3,333
Coconuts	.....	684	684
Coffee	61	44	105
Coke	2,032	.....	2,032

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Cold storage:			
Butter	100	.....	100
Cheese	159	.....	159
Eggs	.....	75	75
Lard	463	.....	463
Meat	12	.....	12
Other	91	.....	91
Confectionery	563	.....	563
Cork	91	.....	91
Cotton	98	1,233	1,331
Cyanide	100	.....	100
Drugs	437	56	493
Earthenware	99	89	188
Eggs, dried	.....	212	212
Explosives	63	.....	63
Fertilizer	18	.....	18
Flour	242	5,587	5,829
Fruit, dried	33	5,632	5,665
Fuller's earth	18	.....	18
Furniture	382	.....	382
General	41,894	14,752	56,646
Glass and glassware	2,649	170	2,819
Graphite	17	.....	17
Guano	100	.....	100
Hair	.....	60	60
Hardwoods	1,006	11	1,017
Hay	.....	25	25
Hemp	.....	978	978
Honey	.....	8	8
Infusorial earth	.....	53	53
Ink	18	.....	18
Jute	150	30	180
Linoleum	423	94	517
Liquors	48	.....	48
Lumber	1,360	177,788	179,148
Malt	179	.....	179
Manufactured goods:			
Iron and steel	124,392	1,025	125,417
Machinery	4,470	253	4,723
Railroad material	2,615	.....	2,615
Tinplate	11,293	.....	11,293
Textiles	7,124	159	7,283
Miscellaneous	11,400	3,072	14,472
Matches	136	71	207
Metals:			
Antimony	.....	953	953
Copper	100	5,023	5,123
Iron	3,092	.....	3,092
Lead	.....	763	763
Scrap	22	175	197
Tin	75	49	124
Zinc	.....	645	645
Other	668	25	693
Milk, powdered	40	526	566
Molasses	134	.....	134
Musical instruments	25	.....	25
Nuts	3	225	228
Oats	20	.....	20
Oils:			
Cottonseed	189	.....	189
Crude	200	22,789	22,989
Gas oil, fuel oil	27	.....	27
Gasoline, benzine, naptha	.....	254,737	254,737
Kerosene	.....	10,272	10,272
Linseed	700	.....	700
Lubricating and greases	5,165	20	5,185
Olive	20	.....	20
Vegetable	240	.....	240
Wood	90	86	176
Other	10	21	31
Ores:			
Copper	.....	550	550
Lead	.....	100	100
Magnesite	.....	2,253	2,253
Manganese	25	.....	25
Other	200	.....	200
Paint	549	43	592
Paper	7,284	6,401	13,685
Paper pulp	.....	9,977	9,977
Paper roofing	118	.....	118
Peanuts	80	216	296
Peas	.....	20	20
Phosphates	697	.....	697
Porcelain	55	638	693
Rags	.....	430	430

Commodity.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Rice	95	75	170
Rope	245	15	260
Rosin	987	.....	987
Rubber:			
Manufactured	1,354	411	1,765
Raw	61	.....	61
Scrap	6	20	26
Salt	301	.....	301
Sand	2,054	.....	2,054
Seeds	.....	293	293
Shells	1,814	.....	1,814
Silk	10	145	155
Skins and hides	.....	2,082	2,082
Slag	1,000	.....	1,000
Slate	597	.....	597
Soap	3,560	137	3,697
Soda	334	.....	334
Soda ash	793	.....	793
Soda, bicarbonate	415	.....	415
Soda, caustic	995	.....	995
Starch	12	.....	12
Sugar	113	16,466	16,579
Sulphur	6,931	.....	6,931
Syrup	140	.....	140
Tallow	.....	218	218
Tar	120	.....	120
Tea	44	.....	44
Tobacco	1,392	103	1,495
Toys	129	.....	129
Turpentine	50	.....	50
Vegetables	.....	84	84
Waste	89	200	289
Wax	227	71	298
Wheat	.....	35	35
Wine	5	164	169
Wool	34	4,883	4,917
Totals, June, 1929	274,074	582,630	856,704
Totals, June, 1928	246,570	535,928	782,498
Totals, June, 1927	262,663	695,054	957,717

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Week Ending July 13, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Visargis	North German Lloyd	July 3	July 3	800	.....
Corinto	Panama Mail S. S. Co	July 3	July 3	.....	13
California	Panama-Pacific Line	July 5	July 5	.....	173
Tsuyama Maru	Nippon Yusen Kaisha	July 7	July 7	307	.....
Ecuador	Panama Mail S. S. Co	July 8	July 9	92	.....
Vinland	Ole Knutsen	July 9	July 9	14	.....
Annam	East Asiatic Co	July 10	July 10	282	.....
Hague Maru	Osaka Shosen Kaisha	July 10	July 11	781	.....
Rakuyo Maru	Nippon Yusen Kaisha	July 11	July 11	92	31
Caldas	National Navigation Co	July 11	July 11	.....	3
Albert Voegler	Hamburg-American Line	July 11	July 12	662	.....
Santa Barbara	Grace Line	July 11	July 11	5	.....
City of San Francisco	Panama Mail S. S. Co	July 11	July 12	37	.....
Frost	Hans Ericson	July 11	.....	268	.....
El Salvador	Panama Mail S. S. Co	July 13	July 14	75	2

Official Circular.

Appointment.

THE PANAMA CANAL, EXECUTIVE OFFICE,
BALBOA HEIGHTS, C. Z., *June 18, 1929.*

To all concerned.—The appointment of Capt. Roy W. Ryden, U. S. Navy, as Assistant to the Governor, The Panama Canal, is hereby announced, to date from June 19, 1929.

Effective June 20, 1929, Captain Ryden will be Superintendent, Mechanical Division, vice Capt. William McEntee, relieved from duty with The Panama Canal.

H. BURGESS,
Governor.

Binders for The Panama Canal Record.

Cardboard covers, punched and fitted with brass fasteners forming binders for THE PANAMA CANAL RECORD are offered for sale at 25 cents a set, for the benefit of those who wish to keep a file of the issues for ready reference. Orders may be addressed to The Panama Canal, Balboa Heights, Canal Zone, or The Panama Canal, Washington, D. C.

Cable Address of The Panama Canal.

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Three Weeks Ending July 13, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Ancon	Panama R. R. S. S. Line		June 23		2,965
Juan S. Elcano	Spanish Line		June 23		117
Nosa King	N. O. & S. A. S. S. Co		June 23		101
Wanks	Standard Fruit & S. S. Co		June 23		8½
Losada	Pacific Steam Nav. Co		June 23		81
La Paz	Pacific Steam Nav. Co		June 23		155
Calamares	United Fruit Co	June 23	June 23	19	81
Romulus	West India Oil Co	June 23	June 24	7,283	(2)
Corinto	Panama Mail S. S. Co	June 23		714	
Durazzo	Hamburg-American Line	June 23	June 30	383	572
Guatemala	Panama Mail S. S. Co		June 24		501
Cartago	United Fruit Co		June 24		222
Indiana	French Line		June 24		236
Santa Cecelia	Grace Line	June 24	June 24	(1)	103
Finn	Colombian Maritime Co	June 24	June 24	160	(2)
Ebro	Pacific Steam Nav. Co	June 24	June 24	8	64
Aachen	North German Lloyd	June 24	June 25	48	121
Guadeloupe	French Line	June 24	June 26	312	320
Pastores	United Fruit Co	June 24	June 26	730	110
Nora B	H. Blackwood	June 25	June 25	(1)	2¼
Impero	Soc. Italo Cilena	June 25	June 26	85	(2)
Benjamin Franklin	Fred Olsen & Co	June 25	June 26	340	254
Barneveld	Royal Netherlands S. S. Co	June 25	June 26	430	134
Santa Cruz	Grace Line	June 26	June 26	130	(2)
Stuyvesant	Royal Netherlands S. S. Co	June 26	June 26	82	2
Bodegraven	Royal Netherlands S. S. Co	June 26	June 26	41	(2)
Inapaquina	United Fruit Co	June 26	June 26	40	(2)
Orbita	Pacific Steam Nav. Co	June 26	June 26	94	½
Guayaquil	Panama R. R. S. S. Line	June 26	June 27	11	51
Sixaola	United Fruit Co	June 26	June 27	739	568
Aragonia	Hamburg-American Line	June 26	June 27	39	(2)
Alvarado	Pacific Steam Nav. Co	June 26	June 27	50	118
Novian	Leyland S. S. Line	June 26	June 27	574	6
Lochmonar	Pacific Steam Nav. Co	June 26	June 28	52	597
Lochgoil	Pacific Steam Nav. Co	June 27	June 27	(1)	128
Notre Dame de Fourviere	French Line	June 27	June 27	10	(2)
Linda S	R. Feuillebois	June 27	June 27	(1)	37½
Grunewald	Hamburg-American Line	June 27	June 28	11	718
St. Andre	French Line	June 27	June 28	664	(2)
Grandon	Hamburg-American Line	June 27	June 28	172	52
Baralt	Royal Netherlands S. S. Co	June 27		111	
Inapaquina	United Fruit Co	June 27	June 28	29	(2)
Saramacca	United Fruit Co	June 27	June 28	566	184
Colombia	Panama Mail S. S. Co	June 27	June 28	836	145
Acajutla	Pacific Steam Nav. Co		June 28		1,138
Suriname	United Fruit Co	June 28	June 28	4	422
Balboa	Johnson S. S. Line	June 28	June 28	138	73
Saale	North German Lloyd	June 28	June 28	(1)	165
Limon	United Fruit Co	June 28	June 29	614	136
Amapala	Standard Fruit & S. S. Co	June 28	June 29	289	441
Caldas	National Nav. Co		June 29		81
Stuyvesant	Royal Netherlands S. S. Co	June 29	June 29	(1)	458
Rialto	Nav. Lib.-Tristina	June 29	June 29	284	(2)
Managui	United Fruit Co	June 29	June 29	39	332
Wanks	Standard Fruit & S. S. Co	June 29	June 30	139	4
Parismina	United Fruit Co	June 29		1,033	
Pastores	United Fruit Co	June 30	June 30	4	91
Buenaventura	Panama R. R. S. S. Co	June 30		284	
Atlas	Royal Netherlands S. S. Co	June 30		½	
Planter	T. & J. Harrison	June 29	June 30	625	(2)
Parismina	United Fruit Co		July 1		60
Buenaventura	Panama R. R. S. S. Line		July 1		96
Saramacca	United Fruit Co	July 1	July 1	58	49
Santa Teresa	Grace Line	July 1	July 1	50	(2)
Rhodopis	Hamburg-American Line	July 1	July 2	31	237
Abraham Lincoln	Norway-Pacific Line	July 1	July 2	(1)	573
Frederic Ewing	Pan-Amer. Petroleum Co	July 1	July 2	10,625	(2)
Ulua	United Fruit Co	July 1	July 3	418	27
Swiftarrow	C. D. Mallory & Co	July 1	July 3	12,000	(2)
Mercian	Leyland Line		July 2		62½
Baralt	Royal Neth. S. S. Co		July 2		193
Cauca	National Navigation Co	July 2		283	
Rugia	Hamburg-American Line	July 2		116	35
Orita	Pacific Steam Nav. Co	July 2	July 3	105	21
Pacific Reliance	Furness, Withy & Co	July 2	July 3	(1)	339
Glamorganshire	Pacific Steam Nav. Co	July 3	July 3	(1)	7
Corinto	Panama Mail S. S. Co		July 3		2,260

[1] No. cargo discharged.

[2] No cargo laded.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z.—Continued.

Name of vessel.	Line or charterer	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cerigo	Hamburg-American Line	July 3		395	
Manizales	North German Lloyd	July 3	July 6	405	331
Inapaquina	United Fruit Co	July 3		35	
Aconcagua	Chilean Line	July 3	July 3	(1)	8
Cristobal	Panama R. R. S. S. Line	July 3		3,701	
Zacapa	United Fruit Co	July 3	July 4	415	253
Santa Inez	Grace Line	July 4	July 5	50	(2)
Coppename	United Fruit Co	July 4	July 5	648	11
Heinrich Arp	Colombian Mar. Co	July 4	July 5	186	(2)
Saramacca	United Fruit Co	July 5	July 5	7	413
Atlantida	Standard Fruit & S. S. Co	July 5	July 6	256	454
Maravi	United Fruit Co	July 5	July 6	429	273
Margaret Johnson	Johnson Line	July 6		202	
Negada	Hamburg-American Line	July 6	July 6	35	68
Linda S	R. Feuillebois	July 6	July 6	(1)	39
Waunta	Standard Fruit & S. S. Co	July 6		574	
Wanks	Standard Fruit & S. S. Co	July 6		144	
San Mateo	United Fruit Co	July 6		953	
Heredia	United Fruit Co	July 6		994	
Cristobal	Panama R. R. S. S. Line		July 7		910
Cerigo	Hamburg-American Line		July 7		355
Wanks	Standard Fruit & S. S. Co		July 7		4
San Mateo	United Fruit Co		July 7		64
Visargis	North German Lloyd		July 7		1,008
Ulua	United Fruit Co	July 7	July 7	30	51
Los Angeles	Hamburg-American Line	July 7	July 8	7	549
Gaasterdijk	Holland-American Line	July 7	July 8	539	(2)
Tsuyama Maru	Nippon Yusen Kaisha	July 7	July 8	161	(2)
Heredia	United Fruit Co		July 8		8
Nassa Chief	N. O. & S. A. S. S. Co	July 8	July 8	4	128
Teno	Chilean Line	July 8	July 9	27	146
Toloa	United Fruit Co	July 8	July 10	206	64½
Caldas	National Navigation Co	July 8	July 11	283	50
Martha	H. C. Stevenson	July 8	July 13	(1)	486
Atlas	Royal Neth. S. S. Co		July 9		39
Zenon	French Line	July 9	July 9	145	(2)
William M	R. Feuillebois	July 9	July 9	(1)	29½
Modavia	Donaldson Line	July 9	July 10	(1)	331
Wido	North German Lloyd	July 9	July 10	143	2
Hudson	French Line	July 9	July 10	331	(2)
Inapaquina	United Fruit Co	July 9	July 10	25	(2)
Ecuador	Panama Mail S. S. Co	July 9	July 10	279	263
Flandre	French Line	July 9	July 11	333	653
Annam	Danish East Asiatic Line	July 10	July 10	92	(2)
Amsterdam	Royal Nether. S. S. Co	July 10		302	
Drechtdijk	Holland-American Line	July 10	July 10	(1)	24
Venezuela	Royal Neth. S. S. Co	July 10	July 10	18	(2)
Albert Voegler	Hamburg-American Line	July 10	July 11	65	271
Cali	North German Lloyd	July 10		475	
Magdalena	Hamburg-American Line	July 10	July 11	215	(2)
Santa Marta	United Fruit Co	July 10	July 11	826	491
Camden	United Fruit Co	July 11	July 11	9,432	(2)
Santa Barbara	Grace Line	July 11	July 11	(1)	42
Suriname	United Fruit Co	July 11	July 12	432	94
Swiftlight	C. D. Mallory	July 11	July 13	12,160	(2)
Hague Maru	Osaka Shosen Kaisha	July 11	July 12	487	(2)
Coppename	United Fruit Co	July 12	July 12	2½	439
Santa Rita	Grace Line	July 12	July 12	174	116
Nora B	H. Blackwood	July 12	July 13	(1)	5
Itauri	Hamburg-American Line	July 12	July 12	22	36
Oroya	Pacific Steam Nav. Co	July 12	July 12	65	(2)
E. Salvador	Panama Mail S. S. Co	July 12	July 13	533	146
Esparta	United Fruit Co	July 12	July 13	969	145
Amapala	Standard Fruit & S. S. Co	July 12	July 13	177	459
Venezuela	Royal Neth. S. S. Co	July 12	July 13	(1)	255
Annie Johnson	Johnson Line	July 12	July 13	(1)	208
Anachucuna	United Fruit Co	July 12		21	
Inapaquina	United Fruit Co	July 12		25	
City of San Francisco	Panama Mail S. S. Co	July 12		1,225	
Nebraska	Royal Mail S. P. Co	July 12	July 13	33	284
Salvador	Pacific Steam Nav. Co	July 13		618	
Mayari	United Fruit Co	July 13	July 13	634	558
Emil Kirdorf	Hamburg-American Line	July 13		41	
Wanks	Standard Fruit & S. S. Co	July 13		129	
Santa Therese	United Fruit Co	July 13		2,023	
Georgie	French Line	July 13		236	
Cartago	United Fruit Co	July 13		289	

[1] No cargo discharged.

[2] No cargo laded.

THE PANAMA CANAL RECORD

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

Volume XXII. Balboa Heights, C. Z., July 24, 1929. No. 51.

Cargo Through Canal During June, 1929.

On pages 728 and 729 of this issue will be found tables showing the origin and destination of cargo passing through the Canal in June, 1929. This cargo, segregated according to direction, as compared with June, 1928, and the differences, is shown in the following tabulation:

	June, 1929.	June, 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Atlantic to Pacific	899,386	765,234	+134,152
Pacific to Atlantic	1,524,616	1,374,331	+150,285
Totals	2,424,002	2,139,565	+284,437

As shown above, cargo tonnage from the Atlantic to the Pacific increased 134,152 tons over June, 1928, while that in the opposite direction gained 150,285 tons, making an aggregate increase over June, 1928, of 284,437 tons.

ATLANTIC TO PACIFIC CARGO MOVEMENT.

Origin.—Sixty-three and six-tenths per cent of the cargo tonnage from the Atlantic to the Pacific originated on the eastern and Gulf seaboards of the United States, and 25.6 per cent in Europe. Cargo originating in the United States was 64,602 tons, or 12.7 per cent, greater than the tonnage from the United States in June, 1928, although the proportion of the total in June, 1928 (66.4 per cent) was slightly higher. Cargo from Europe also increased in actual tonnage as compared with the corresponding month last year (37,081 tons, or 19.2 per cent) while the percentage of the total was approximately the same in June, 1929, as in the corresponding month in 1928.

Destination.—Forty and seven-tenths per cent of the Pacific-bound cargo was destined to the United States; 18 per cent to Asia; 18 per cent to South America; and 15 per cent to Australasia. Tonnage to all of these areas, with the exception of Asia, increased over the amounts destined to these regions in June, 1928. To the United States, the actual increase was 34,038 tons, or 10.2 per cent; to South America, 61,749 tons, or 61.8 per cent; and to Australasia, 20,650 tons, or 18.1 per cent. The percentage of the whole to South America in June, 1929, was also considerably higher than that in June, 1928, while that to the United States was slightly lower in June, 1929. That to Australasia accounted for approximately the same proportion last month as in June, 1928. Tonnage to Asia showed a slight decrease of 3,718 tons under June, 1928, also a decrease with relation to the total cargo. The heavy increase in tonnage to South America was caused primarily by several cargoes of mineral oils destined to Chile.

PACIFIC TO ATLANTIC CARGO MOVEMENT.

Origin.—Of the cargo moving in this direction 52.8 per cent came from the west coast of the United States; 27.1 per cent from South America; 8.9 per cent from Canada; 6.3 per cent from Asia; and 3.9 per cent from Australasia. Cargo from the United States showed a gain of 39,687 tons, or 5.2 per cent; that from South America a gain of 85,057 tons, or 25.9 per cent; that from Asia, a gain of 30,206 tons, or 45.5 per cent; and that from Australasia, a gain of 20,068 tons, or 51.7 per cent, over June, 1928. Tonnage from South America, Asia, and Australasia, also showed increases with relation to the total cargo transiting in June, 1928, while that from the United States decreased. Cargo tonnage from Canada decreased relatively as well as in actual tonnage—the latter amounting to 32,101 tons, or 19.2 per cent.

Destination.—Segregated according to destination, 63.7 per cent of the cargo in this direction went to the United States and 28.4 per cent to Europe. Tonnage to the United States increased 131,940 tons, or 15.7 per cent, and that to Europe increased 23,625 tons, or 5.7 per cent, over June, 1928. Cargo tonnage destined to the United States also showed an increase in its relation to the total, over June, 1928, while the percentage to Europe last month was slightly lower than in June, 1928.

PRINCIPAL COMMODITIES, ATLANTIC TO PACIFIC.

From the cargo declarations submitted it was possible to classify 87 per cent of the total cargo in transit through the Canal from the Atlantic to the Pacific. The remaining 13 per cent consisted, for the most part, of manufactured articles in small lots reported as "General cargo."

Pacific-bound commodities which aggregated more than 10,000 tons for June, 1929, or June, 1928, are listed in the following tabulation, showing differences:

Commodity.	June, 1929.	June, 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Automobiles	22,751	13,991	+8,760
Cement	50,649	15,604	+35,045
Coal and coke	16,745	24,602	−7,857
Cotton	13,504	20,456	−6,952
Manufactured goods:			
Iron and steel	200,102	162,282	+37,820
Machinery	17,682	17,085	+597
Railroad material	10,093	13,865	−3,772
Tinplate	23,100	26,101	−3,001
Textiles	12,701	12,187	+514
Miscellaneous	17,489	17,586	−97
Metals, various	14,368	9,466	+4,902
Oils, mineral	92,467	87,330	+5,137
Phosphates	41,402	18,831	+22,571
Slag	11,894	4,651	+7,243
Sugar	17,925	4,737	+13,188
Sulphur	28,743	9,271	+19,472

The above 16 commodity groups comprise 69 per cent of the cargo moving from the Atlantic to the Pacific. Eleven of the items showed increases over June, 1929, while 5 decreased. The heaviest increases were in iron and steel, cement, phosphates, sulphur, and sugar.

PRINCIPAL COMMODITIES, PACIFIC TO ATLANTIC.

It was possible to classify over 98 per cent of all cargo moving from the Pacific to the Atlantic during the month of June, 1929. Com-

modities which aggregated more than 10,000 tons either during the past month or the corresponding month a year ago are listed below, showing the differences:

Commodity.	June, 1929.	June, 1928.	Difference.
	Long tons.	*Long tons.*	*Long tons.*
Barley	11,321	21,734	−10,413
Canned goods (fish, fruit, vegetables, etc.)	36,844	32,154	+4,690
Coffee	10,309	9,252	+1,057
Cold storage (food products) [1]	22,073	19,784	+2,289
Flour	7,355	12,700	−5,345
Fruit, dried	11,062	12,665	−1,603
Fruit, fresh	13,058	5,457	+7,601
Lumber	283,568	248,643	−65,075
Metals, principally copper	47,603	54,527	−6,924
Nitrates	109,146	67,528	+41,618
Oils, mineral	466,328	391,596	+74,732
Ores (principally iron)	177,326	118,715	+58,611
Rice	9,486	11,264	−1,778
Sugar	101,606	51,399	+50,207
Wheat	79,934	110,552	−30,618
Wool	9,593	11,897	−2,304

[1] Does not include fresh fruit.

The above 16 commodity groups comprise approximately 91 per cent of the cargo from the Pacific to the Atlantic during June, 1929. As will be noted eight of the items showed increases over June, 1928, while eight showed decreases. Mineral oils, ores, sugar, and nitrates were the items showing the heaviest increases, while lumber and wheat decreased rather heavily.

(Continued on page 728.)

Police Canvass of Population of Canal Zone.

The annual house-to-house canvass of the civil population of the Canal Zone taken by the Police and Fire Division during the month of June, 1929, resulted in a count of 30,300 as the total numer of civilian inhabitants. This was an increase of 2,298 over the population of June, 1928. The two districts into which the Zone was divided, Balboa and Cristobal, contributed nearly equally to the increase.

The Balboa district showed an increase of 1,149, due principally to the working force established in the Alhajuela Basin area. La Boca, Pedro Miguel and Ancon showed small increases, but a decrease of 48 was shown for Balboa.

The Cristobal district registered an increase of 1,125, principally in the rural districts of the Gatun Lake area and Silver City.

An increase of 1,260 employees residing in the Canal Zone reflects the increase in the force employed in 1928. The occupants of Canal quarters increased in number by about 400 during the year.

The population, as of June, 1929, was distributed as follows:

	Americans.					All others.					
	Total men.	Employees.	Total women.	Employees.	Children.	Total men.	Employees.	Total women.	Employees.	Children.	Total.
Balboa District	1,943	1,760	1,948	359	1,946	4,258	3,333	2,256	92	4,841	17,192
Cristobal District	518	459	614	30	686	3,863	2,331	2,413	98	4,839	12,933
Prisoners	24	.....	.....	.....	10	108	.....	1	.....	32	175
Total employees	.....	2,219	.....	389	.....	.....	5,664	.....	190	.....	[1]8,462
Total inhabitants	2,485	.....	2,562	.....	2,642	8,229	.....	4,670	.....	9,712	30,300

[1] Includes 311 civilian employees of the Army and Navy.

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, July 20, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Herman Falk [1] [2]	13	19.15	14	6.15	14	12.47	14	14.00	American	Oil Transport Co	431.0	59.2	20.0	New York, N. Y.	San Francisco, Cal.	Ballast		7,862	5,049
Nevada [4]	13	20.45	14	6.25	14	13.37	14	14.40	American	The Texas S. S. Co	434.8	56.2	18.0	Boston, Mass	Los Angeles, Calif.	Ballast		7,425	5,202
Sugillenco	13	22.45	14	7.10	14	15.04	14	18.20	American	Transmarine Lines	324.0	46.0	22.0	Mobile, Ala	Seattle, Wash	General	3,410	3,984	2,612
Tyr [2]	14	4.40	14	7.25	14	15.06	14	16.35	Norwegian	W. L. Comyn & Co	357.0	51.3	22.6	Antwerp, Belgium	Seattle, Wash	(7)	6,415	4,828	3,489
Canadian Miller	14	1.15	14	7.25	14	15.57	14	17.25	British	Can. Nat. Steamships	400.0	52.0	22.0	Montreal, Canada	Vancouver, B. C.	General	5,252	5,892	4,186
Dakotan	14	3.10	14	8.20	14	16.22	14	17.35	American	Amer.-Hawaiian Line	407.0	53.7	21.11	Boston, Mass	Portland, Oreg.	General	4,960	7,156	5,094
Queen Maud	14	5.50	14	8.40	14	17.02	14	18.20	British	DuPont de Nemours Co.	400.2	52.3	18.6	New York, N. Y.	Talcahuano, Chile	General	2,204	5,748	3,955
Deebank	14	7.00	14	10.05	14	17.27	14	19.00	British	Andrew Weir & Co	422.0	56.0	24.0	Philadelphia, Pa.	Chinnanpo, China	General	7,049	7,249	5,106
Canadian Highlander	14	10.05	14	10.15	14	17.46	15	7.10	British	Can. Nat. Steamships	400.0	52.0	19.4	Montreal, Canada	Dunedin, N. Z.	General	4,300	6,192	4,402
Cali	10	21.00	14	12.35	14	19.38	14	21.30	German	Roland Line	216.0	32.0	12.10	Cristobal, C. Z.	Guayaquil, Ecuad'r	General	290	1,105	698
Laguna [2]	14	2.10	14	13.25	14	19.55	15	1.54	British	Pacific Steam Nav. Co.	420.5	54.2	19.2	Glasgow, Scotland	Corral, Chile	General	3,802	7,139	4,640
Gen. G. W. Getty [3]			14	8.00	14	15.52			American	U. S. Army	89.0	22.0		Cristobal, C. Z.	Balboa, C. Z				
Firmore	14	12.25	15	6.15	15	13.42	15	16.20	American	Ore S. S. Corp	449.1	57.2	19.8	Baltimore, Md	Cruz Grande, Chile	Ballast		7,847	5,185
Haida [4]	14	17.05	15	6.20	15	13.09	15	19.30	American	Max C. Fleischmann	198.0	30.0	14.0	New York, N. Y.	Los Angeles, Calif.	Ballast		705	303
Willanglo	14	17.25	15	6.20	15	14.19	15	15.40	American	Williams S. S. Line	409.5	54.2	20.9	Norfolk, Va.	Puget Sound, Wash.	General	5,277	6,510	4,827
Atlantic Sun [2]	14	17.35	15	7.15	15	14.53	15	16.05	American	Sun Oil Co	429.3	59.2	18.0	Philadelphia, Pa.	Los Angeles, Calif.	Ballast		7,568	5,283
Point San Pablo	15	1.45	15	7.25	15	15.21	15	17.35	American	Swayne & Hoyt	324.0	46.2	15.6	New Orleans, La.	Seattle, Wash	General	1,910	3,994	2,591
Santa Eulalia	15	5.20	15	7.25	15	15.20	15	22.10	American	Isthmian S. S. Lines	251.0	43.0	21.0	Baltimore, Md	Honolulu, T. H.	General	2,226	2,823	1,730
Santa Cecilia	15	6.35	15	8.35	15	17.48	15	23.15	American	Isthmian S. S. Lines	404.6	53.0	28.10	Baltimore, Md	Vancouver, B. C.	Steel, general	8,461	6,745	4,562
Sawokla [2]	15	7.57	15	9.40	15	17.10	15	22.10	American	Roosevelt S. S. Co., S. B.	401.9	54.2	25.0	Philadelphia, Pa.	Fremantle, Aust'lia	General	4,001	7,097	5,317
Esparta	15	11.25	15	12.05	15	18.41	15	20.10	American	United Fruit Co	330.6	44.6	20.6	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	860	3,683	2,373
Svealand [2]	15	12.25	15	13.00	15	20.45	16	4.55	Swedish	Ore S. S. Corp	550.1	72.0	22.0	Baltimore, Md	Cruz Grande, Chile	Ballast		15,425	4,421
Uribe	6–18	17.20	15	13.50	15	21.30	15	23.15	Colombian	Colombian Mar. Co	227.0	31.7	12.0	Cristobal, C. Z.	Buenaventura, Col.	General	230	1,154	663
Sylvan Arrow [1]	7–15	15.50	15	16.00	15	22.56	16	00.50	American	Standard Transp. Co	467.6	62.7	18.0	Boston, Mass	Los Angeles, Calif.	Ballast		9,698	6,900
S-17 [5]			16	6.05	16	13.45			American	U. S. Navy	231.0	21.10		Cristobal, C. Z.	Balboa, C. Z				
San Claudio [1] [6]	16	1.10	16	6.15	16	13.47			British	Anglo-Mexican Pet. Co.	305.0	51.0	10.6	Aruba, D. W. I.	Balboa, C. Z	Ballast			
Amsterdam	10	8.25	16	7.05	16	15.18	16	17.05	Dutch	Royal Neth. S. S. Co	473.0	65.5	25.0	Hamburg, Germany	Corral, Chile	General	5,279	11,638	7,744
Commercial Traveler	16	9.10	16	9.35	16	16.35	16	17.40	American	Moore & McCormack	380.3	53.1	17.0	Chester, Pa	Valparaiso, Chile	General	2,376	5,657	4,133
Buffalo Bridge	16	14.25	16	14.55	16	22.35	16	23.56	American	Charles Nelson & Co	324.0	46.2	19.6	Baltimore, Md	San Francisco, Cal.	General	3,120	3,985	2,630
Henry D. Whiton	16	21.25	17	6.15	17	13.32	17	14.45	American	Texas Gulf Sulphur Co.	356.0	51.6	25.5	Galveston, Tex.	Anacortes, Wash.	Sulphur	3,910	5,367	2,925
Erviken	16	23.15	17	6.30	17	14.25	17	15.40	Norwegian	Isbrandtsen Moller Co	420.0	54.0	21.0	Chester, Pa	Manila, P. I	General	6,295	6,979	5,136
Walter A. Luckenbach	17	00.50	17	7.20	17	14.44	17	15.40	American	Luckenbach Line	446.5	56.1	23.6	Boston, Mass	Seattle, Wa h	General	4,894	8,785	6,567

[1] Tanker. [2] Motor ship [3] Tug. [4] Yacht. [5] Submarine. [6] Balboa for dry docking. [7] Silver sand and rags.

Kansan	17	7.12	17	8.10	17	15.15	17	16.20	American	Amer.-Hawaiian Line	404.6	53.9	19.8	New York, N. Y.	Seattle, Wash.	General	3,855	6,779	4,921
Point Breeze [1] [2]	17	10.05	17	10.20	17	17.13	17	18.30	American	Atlantic Refining Co	364.9	57.0	21.0	Philadelphia, Pa.	Los Angeles, Calif.	Lubricating oil	2,415	5,113	3,571
Loriga [2]	17	3.40	17	11.20	17	18.55	18	00.18	British	Pacific Steam Nav. Co.	406.5	54.2	24.7	Hull, England	Corral, Chile	General	6,518	7,331	5,091
Antietan [1]	17	12.55	17	13.15	17	20.00	17	22.00	American	Pennsylvania Ship. Co.	435.0	56.0	23.0	New York, N. Y.	Los Angeles, Calif.	Ballast		7,426	5,073
Arana	16	8.50	17	13.42	17	21.03	17	22.00	British	Pacific Steam Nav. Co.	303.4	43.0	16.6	New York, N. Y.	Callao, Peru	General	800	2,851	1,776
Athelduke [1] [2]	17	17.55	18	6.20	18	13.14	18	19.12	British	British Molasses Co.	475.0	63.0	18.6	New York, N. Y.	Los Angeles, Calif.	Ballast		9,589	6,416
Acme [1]	18	6.50	18	7.20	18	14.57	18	16.25	American	Standard Transp. Co.	435.0	56.0	26.0	Beaumont, Texas	Los Angeles, Calif.	Batching oil	8,890	7,165	4,926
Anachucuna [8]	18	9.55	18	9.55	19	12.49			Panaman	United Fruit Co	105.0	15.3	5.0	Cristobal, C. Z.	Balboa, C. Z.	([10])	69	92	47
Skegness	18	10.15	18	10.30	18	17.43	18	19.12	British	Reardon-Smith Line	401.6	54.3	24.10	Pt. Arthur, Tex.	Nanking, China	Kerosene [11]	7,642	6,621	4,916
Yankee Arrow [1]	18	10.35	18	11.10	18	18.40	18	20.15	American	Standard Oil Co	485.3	62.7	18.0	New York, N. Y.	Los Angeles, Calif.	Ballast		9,841	6,946
Pacific Exporter [2]	17	9.43	18	12.15	18	19.24	18	20.26	British	Furness, Withy & Co.	450.0	60.0	19.7	Glasgow, Scotland	Vancouver, B. C.	General, bananas	1,593	9,633	6,998
Saint Louis	17	9.40	18	13.25	18	20.50	18	22.12	French	French Line	414.0	50.0	21.6	Havre, France	Valparaiso, Chile	General	2,608	5,857	4,166
Ebro	18	18.30	19	6.05	19	13.08	19	14.50	British	Pacific Steam Nav. Co	450.0	57.0	26.8	New York, N. Y.	Talcahuano, Chile	General	4,050	9,291	6,301
Virginia	19	5.45	19	7.05	19	15.13	20	00.14	American	Panama-Pacific Line	586.4	80.3	26.4	New York, N. Y.	San Francisco, Cal.	General	3,506	25,254	18,170
El Ciervo [1]	19	2.50	19	8.35	19	16.07	19	17.15	British	Anglo-Ecuad. Oilfields	406.0	52.2	19.6	Philadelphia, Pa.	La Libertad, Ecua.	Ballast		6,046	4,326
Castor [1] [2]	19	6.05	19	9.40	19	17.18	19	21.30	Swedish	Anglo-Saxon Pet. Co.	466.0	61.0	20.6	Hamburg, Germany	Los Angeles, Calif.	Ballast		8,960	6,295
Silverbelle [2]	19	7.15	19	10.45	19	18.08	19	19.02	British	Kerr Steamship Co.	425.6	58.3	19.2	New York, N. Y.	Manila, P. I.	General	3,157	8,218	6,037
Marion Otis Chandler	19	7.25	19	10.55	19	18.25	19	19.34	American	Arrow Line	409.5	54.1	18.6	Baltimore, Md.	Seattle, Wash.	General	3,869	6,653	4,870
Donau	19	6.00	19	12.30	19	19.30	19	21.00	German	North German Lloyd	524.4	64.0	23.4	Bremen, Germany	Vancouver, B. C.	General	3,045	11,007	7,698
Romera	19	16.40	19	16.55	20	10.15	20	11.40	British	Can.-Amer. Ship. Co.	402.0	52.0	23.0	Tampa, Fla.	Yokohama, Japan	Phosphate	6,001	5,587	4,205
Cauca [2]	2	17.30	20	6.05	20	14.30	21	00.02	Colombian	National Navigation Co.	107.0	22.0	9.3	Cristobal, C. Z.	Buenaventura, Col.	General	159	238	163
City of San Francisco [2]	12	19.30	20	6.09	20	13.30	20	15.50	Panaman	Panama Mail S. S. Co.	296.0	45.0	20.10	Cristobal, C. Z.	San Francisco, Cal.	General	3,043	3,848	2,606
City of Dunkirk	19	14.40	20	6.05	20	13.45	20	14.50	British	Ellerman-Hall Line	420.0	54.0	24.0	New York, N. Y.	Sydney, Australia	General	4,299	7,108	5,420
Sabotawan	19	21.10	20	7.35	20	14.46	20	16.10	American	Redwood Line	387.0	52.0	23.0	Mobile, Ala.	San Francisco, Cal.	General	5,753	5,708	4,138
Neponset [3]	20	6.05	20	7.30	20	14.41			American	Merrit, Chapman, Scott	76.0	19.5	10.8	New York, N. Y.	Los Angeles, Calif.	Ballast		130	60
Cambrai [9]	19	8.25	20	10.00	20	16.00			American	U. S. Army	436.0	58.0	24.10	Brooklyn, N. Y.	Balboa, C. Z.	General	464		
William H. Doheny [1]	20	3.20	20	10.22	20	17.04	20	18.33	American	Huasteca Petroleum Co.	435.0	56.2	23.0	Baltimore, Md.	Los Angeles, Calif.	Ballast		7,406	5,111
Herakles	20	10.30	20	11.20	20	19.04	20	20.20	Norwegian	Bruusgaard Kiosterud	390.0	54.1	24.6	Antwerp, Belgium	Los Angeles, Calif.	Sand, coke, gen.	7,000	5,680	4,220
Holland Maru	20	6.25	20	12.05	20	20.05	20	21.43	Japanese	Kawasaki Kisen Kaisha	385.0	51.0	27.2	Norfolk, Va.	Yawata, Japan	Scrap iron, gen.	7,055	5,926	4,434
Sutherland	20	12.40	20	14.30	20	22.12	20	23.42	American	Charles Nelson & Co.	380.0	53.2	23.1	Baltimore, Md.	Seattle, Wash.	Coal, steel, gen.	5,838	5,654	4,123
Oregonian	20	17.25	20	18.45	21	9.09	21	10.10	American	Amer.-Hawaiian Line	404.0	54.0	19.6	Boston, Mass.	Portland, Oreg.	General	4,065	6,754	4,800

[1] Tanker. [8] Motor boat. [9] Transport. [10] 2,762 stems of bananas. [11] Cases.

THROUGH THE CANAL—PACIFIC TO ATLANTIC

Seattle [12]	13	19.40	14	6.05	14	13.50	14	16.15	German	Hamburg-American Line	461.6	62.0	27.0	Vancouver, B. C.	Hamburg, Germany	General	7,638	9,267	6,834
Siljestad [12]	13	21.55	14	6.53	14	14.30	14	15.35	Norwegian	Fern Line	376.5	53.8	26.6	New West'ster, B.C.	New York, N. Y.	Lumber	6,975	6,264	4,706
Helen Whittier	14	6.00	14	7.39	14	16.55	14	16.55	American	Sudden & Christenson	409.6	54.2	24.0	Seattle, Wash.	Baltimore, Md.	Lumber	7,350	5,920	4,318
Wearpool	14	9.30	14	10.15	14	19.30	14	22.10	British	Can.-Amer. Co., Ltd	390.0	55.5	24.0	Portland, Oreg.	Dublin, Ireland	Wheat, lumber	8,097	6,667	4,949
Benedick [12] [1]	14	1.00	14	10.34	14	18.15	14	19.15	British	C. T. Bowring & Co.	430.0	58.2	26.0	Los Angeles, Calif.	Land's End, Eng. [13]	Gasoline	9,618	7,285	4,856
Canadian Explorer	14	12.20	14	13.14	14	20.55	14	22.50	British	Can. Nat. Steamships	400.0	52.3	22.0	Cairns, Australia	Montreal, Canada	Logs, general	5,345	5,853	4,058
Santa Maria [12]	14	14.08	15	6.18	15	13.00	15	16.17	American	Grace Line	466.0	64.0	23.6	Talcahuano, Chile	New York, N. Y.	General	3,860	10,626	6,680
Point Sur	14	16.30	15	6.36	15	14.05	15	14.05	American	Gulf-Pacific Line	324.0	46.2	21.0	Seattle, Wash.	New Orleans, La.	Lumber, general	3,092	3,984	2,612

[1] Tanker. [12] Motor ship [13] For orders.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.	Panama Canal tonnage.		
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Tashmoo	14	20.00	15	6.48	15	14.10	15	15.00	American	Nelson S. S. Line	324.0	46.2	24.0	San Francisco, Cal.	Baltimore, Md.	Lumber, general.	4,865	2,984	2,628
Toluma	14	16.35	15	7.05	15	16.00	15	17.30	Norwegian	Grace Line	417.8	54.4	29.4	Magallanes, Chile.	New York, N. Y.	Copper, general	9,586	7,176	5,219
India Arrow [1]	14	18.55	15	7.45	15	16.40	15	16.40	American	Standard Oil Co. of N.Y.	468.3	62.7	27.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,246	10,084	7,426
Norwich City	15	8.10	15	8.50	15	17.55	15	17.55	British	Sir W. R. Smith & Sons	397.0	53.5	25.8	Kelso, Oreg	Earsdon, England	Lumber	7,350	6,051	4,514
Pensylvanie	15	9.45	15	10.36	15	19.25	16	12.10	French	French Line	400.0	52.5	26.0	Valparaiso, Chile.	Le Havre, France.	Nitrates, copper	7,483	5,964	4,384
Amerikaland [14]	15	12.50	15	18.50	16	14.00	16	14.00	Swedish	Ore S. S. Corp	561.0	72.0	33.6	Cruz Grande, Chile	Baltimore, Md.	Iron ore	21,600	15,560	4,496
London Importer	15	19.35	16	6.16	16	13.30	16	13.30	British	Furness, Withy & Co.	450.4	58.0	29.6	Vancouver, B. C.	Glasgow, Scotland	General	8,558	8,529	5,993
Kinderdijk	15	16.00	16	6.40	16	14.55	16	21.10	Dutch	Holland-American Line.	469.7	58.2	25.6	Vancouver, B. C.	Rotterdam, Holland	General	9,062	8,515	6,060
Flint No. 2	15	17.15	16	7.20	16	15.30	16	17.45	Norwegian	Willy Kuson	419.5	54.2	24.3	Vancouver, B. C.	Boston, Mass.	Lumber, general	7,000	6,170	4,439
Santa Rosalia	15	20.20	16	7.51	16	16.15	16	17.55	American	Isthmian S. S. Lines	406.0	52.6	24.8	Caleta Colosa, Chile	Wilmington, N. C	Nitrates	8,150	5,900	4,443
Nordvard [14]	15	21.20	16	8.10	16	16.30	16	17.40	Norwegian	Dollar Line	377.6	54.0	24.3	Manila, P. I.	New York, N. Y.	Sugar	6,500	6,108	4,358
San Manuel [1]	15	22.15	16	8.45	16	17.20	16	20.50	British	Anglo-Amer. Pet. Co.	406.3	52.3	25.0	Los Angeles, Calif.	Lizards, Eng. [15]	Gasoline	7,394	6,183	4,343
Almagro	16	1.30	16	9.00	16	18.20	17	14.40	British	Pacific Steam Nav. Co.	303.4	43.0	16.0	Cerro Azul, Chile.	New York, N. Y.	General	1,464	2,826	1,770
Canadian Cruiser	16	3.00	16	9.35	16	19.00	17	2.20	British	Can. Nat. Steamships.	430.0	56.2	21.0	Sydney, Australia.	Montreal, Canada.	General	2,268	7,680	5,518
Arizonian	16	9.20	16	10.04	16	19.15	16	19.15	American	Amer.-Hawaiian Line	343.3	57.7	24.6	Portland, Oreg.	Boston, Mass.	Lumber, general	6,569	7,983	5,859
Vancolite [1] [14]	16	11.20	16	12.09	16	20.15	16	20.15	British	Imperial Oil Co.	510.2	68.2	30.6	Lobitos, Peru	Halifax, N. S.	Crude oil	16,200	11,573	7,096
F. J. Luckenbach	16	11.20	16	13.00	16	20.35	16	20.35	American	Luckenbach Line	446.0	56.1	26.6	Portland, Oreg.	Boston, Mass.	Lumber, general	5,414	8,508	6,179
Mongolia	16	13.10	17	6.13	17	13.35	17	14.40	American	Panama-Pacific Line	600.0	65.3	31.0	San Francisco, Cal.	New York, N. Y.	General	5,200	17,041	11,426
Corvus	16	17.30	17	6.47	17	14.35	17	14.35	American	Planet Line, Inc.	410.0	54.2	27.9	Seattle, Wash.	Baltimore, Md.	Lumber, general	7,416	6,604	4,655
Liverpool Maru	16	19.00	17	7.08	17	15.10	17	15.10	Japanese	Kokusai Kisen Kaisha.	385.0	51.0	25.0	Iloilo, P. I.	Norfolk, Va. [15]	Sugar	7,327	5,919	4,400
Arizona	16	21.30	17	7.38	17	16.35	17	16.35	American	The Texas Co	391.8	51.3	23.4	Los Angeles, Calif.	Port Arthur, Tex.	Gasoline	7,600	5,552	3,757
Suscolanco	17	14.41	17	15.37	17	20.30	17	22.30	American	Transmarine Lines	324.0	46.2	23.0	Seattle, Wash.	New York, N. Y.	Lumber	4,100	3,984	2,612
Snestad [14]	17	15.20	17	16.04	18	11.05	18	11.05	Norwegian	Fern Line	377.6	54.0	25.0	Kohsichang, Siam	Neuvitas, Cuba	Rice	7,175	6,079	4,534
New Jersey [1]	17	20.30	18	6.22	18	14.00	18	14.40	American	The Texas Co	416.8	56.1	26.0	Los Angeles, Calif.	Port Arthur, Texas	Gasoline	7,507	7,130	5,249
Rapot	18	00.15	18	6.36	18	15.40	19	00.01	German	North German Lloyd	393.4	54.3	27.0	Valparaiso, Chile.	Hamburg, Germany	General	8,368	6,583	4,626
Ohioan	18	6.50	18	7.44	18	16.25	18	16.25	American	Amer.-Hawaiian Line	407.7	53.7	22.1	Tacoma, Wash.	Boston, Mass.	General	4,482	7,103	4,991
M. F. Elliott [1]	18	10.15	18	11.06	18	18.15	18	18.15	American	Standard Ship. Co	425.0	57.2	27.3	Los Angeles, Calif.	New York, N. Y.	Gasoline	9,260	7,481	4,996
Japan Arrow [1]	18	11.15	18	11.48	18	19.20	18	19.20	American	Standard Transp. Co.	468.3	62.7	28.0	Los Angeles, Calif.	New York, N. Y.	Gasoline	11,460	10,084	7,426
Eldena	18	12.30	18	14.05	18	22.55	18	22.55	American	Tampa Interocean Co.	409.0	54.0	27.2	Manila, P. I.	Boston, Mass.	Sugar	8,514	7,486	5,747
Julia Luckenbach	18	13.15	18	14.48	18	21.35	18	21.35	American	Luckenbach Line	436.6	57.2	31.0	Portland, Oreg.	Mobile, Ala	Sugar, general.	10,023	8,543	6,402
Manhattan Island	18	15.30	18	16.18	19	11.00	19	11.00	American	Redwood Line	386.8	52.2	23.0	San Francisco, Cal.	Mobile, Ala.	Lumber, general.	5,954	5,696	4,125
Saint Jean	18	15.35	18	16.51	19	12.55	20	14.10	French	French Line	415.0	50.3	24.6	San Antonio, Chile.	Le Havre, France.	Nitrates, general.	7,177	5,849	4,101
Fort Armstrong	18	15.25	19	6.15	19	14.50	19	14.50	American	Charles Nelson & Co.	324.0	46.2	22.0	Los Angeles, Calif.	Norfolk, Va.	Lumber, general.	4,500	3,984	2,628

[1] Tanker. [14] Motor ship. [15] For orders.

La Perla	18	18.00	19	6.23	19	14.55	20	14.35	American	United Fruit Co	325.2	48.1	19.0	San Francisco, Cal.	Port Limon, C. R.	General	299	4,033	2,261
Cities Service Empire [1]	18	19.30	19	7.05	19	16.25	19	16.25	American	Cities Service Trans. Co.	464.7	60.2	27.4	Los Angeles, Calif.	Baltimore, Md.	Gasoline	11,500	8,561	5,997
Thalia [14]	18	20.27	19	7.19	19	16.00	19	17.05	Danzig	Waried Tankschiff Red.	469.5	62.0	26.6	Talara, Peru	Rotterdam, Holland	Naphtha	11,303	9,018	5,929
Baralt	19	6.15	19	7.40	19	17.10	21	6.05	Dutch	Royal Neth. S. S. Co.	203.0	33.1	12.6	Guayaquil, Ecuad'r	Cristobal, C. Z.	General	335	1,183	742
Wentworth	19	12.50	19	13.34	19	20.25	19	20.25	British	R. S. Dalgliesh	400.0	52.3	25.9	Portland, Oreg.	Queenstown, Irel'd.	Wheat	7,307	5,791	4,058
Jefferson Myers	19	13.40	19	14.24	19	21.45	20	3.30	American	Quaker Line	440.0	56.0	28.3	Portland, Oreg.	New York, N. Y.	Lumber, copper	8,435	8,300	6,020
Darden [1]	19	14.05	19	14.57	19	22.50	19	22.50	American	T. P. Gallagher & Co.	391.9	51.2	25.4	Manila, P. I.	New York, N. Y.	Coconut oil	6,604	5,410	3,627
W. H. Tilford [1]	19	17.15	20	5.58	20	13.40	20	13.40	American	Standard Ship. Co.	411.6	53.4	25.0	Los Angeles, Calif.	Bayonne, N. J.	Gasoline	9,541	.....	.....
Anachucuna	19	12.49	20	6.08	20	13.40	20	13.40	Panama	United Fruit Co.	105.0	11.0	.....	Balboa, C. Z.	Cristobal, C. Z.	Ballast	.....	.....	.....
Knight Companion	19	23.45	20	6.50	20	14.50	20	16.45	British	Alfred Holt & Co.	470.4	58.1	23.2	Iloilo, P. I.	New York, N. Y.	Sugar, hemp	6,302	8,546	6,263
Agwimars [1]	20	2.25	20	7.12	20	16.05	20	16.05	American	Inter. Shipping Corp.	429.3	59.2	30.6	Los Angeles, Calif.	Boston, Mass.	Crude oil	10,600	7,596	5,209
Sunewarkco.	20	3.10	20	7.43	20	16.10	20	16.10	American	Transmarine Lines	324.0	46.2	24.0	Vancouver, B. C.	New York, N. Y.	Lumber	3,983	3,984	2,628
Margarethe Cords	20	9.30	20	10.27	20	17.40	20	23.50	German	Colombia Mar. Co.	265.0	42.0	14.6	Buenaventura, Col.	New York, N. Y.	Coffee, hides	1,200	2,263	1,622

[1] Tanker.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

PORT OF CRISTOBAL.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 14	Toloa	United Fruit Co	Port Limon, Costa Rica.	July 14	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
July 15	Linda S. [16]	A. L. Surgeon	Colon, R. P.	July 14	Venezuela	Royal Nether. S. S. Co	Amsterdam via wayports.
July 15	Suriname	United Fruit Co	Puerto Colombia.	July 14	Mayari	United Fruit Co	New York via Kingston.
July 15	No. 8020 [17]	Pan-American Airways	Buenaventura, Colombia.	July 14	Magdalena	Hamburg-American Line	Hamburg via wayports.
July 15	Calamares	United Fruit Co	New York via Habana.	July 14	Toloa	United Fruit Co	New York via Habana.
July 15	No. 9688 [17]	Pan-American Airways	Managua via David.	July 15	Cartago	United Fruit Co	New Orleans via wayp'ts.
July 15	No. 8044 [17]	Pan-American Airways	Guayaquil via wayports.	July 15	Suriname	United Fruit Co	Bocas, R. P.
July 17	Ancon	Panama R. R. S. S. Line	New York via Haiti.	July 15	Linda S [19]	A. L. Surgeon	Bluefields, Nicaragua.
July 17	Cavina	Elders & Fyffes	Avonmouth via wayports.	July 16	St. Therese	United Fruit Co	Cartagena, Colombia.
July 17	Novian	Leyland S. S. Line	Tarafa, Cuba.	July 16	No. 9685 [17]	Pan-American Airways	Managua via David.
July 17	Metapan	United Fruit Co	New York via Kingston.	July 16	No. 9776 [17]	Pan-American Airways	Curacao via wayports.
July 17	Darien C-35 [17]	Scadta Airplane Co	Barranquilla, Colombia.	July 16	No. 8020 [17]	Pan-American Airways	Guayaquil via wayports.
July 17	Manuel Arnus	Spanish Line	Barcelonia via wayports.	July 17	Calamares	United Fruit Co	Port Limon, Costa Rica.
July 17	Anachucuna [18]	United Fruit Co	Colon, R. P.	July 17	Anachucuna [18]	United Fruit Co	Colon, R. P.
July 18	Inapaquina [18]	United Fruit Co	Colon, R. P.	July 17	Cavina	Elders & Fyffes	Avonmouth via wayports.
July 18	Eugenia D. [19]	Spencer Davis	Colon, R. P.	July 18	Inapaquina [18]	United Fruit Co	Colon, R. P.
July 18	No. 9685 [17]	Pan-American Airways	Managua via David.	July 18	Isle of Pines [18]	Colon Import & Export Co	Colon, R. P.
July 18	Dorelian	Leyland S. S. Line	Liverpool via wayports.	July 18	No. 9688 [17]	Pan-American Airways	Managua via David.
July 18	No. 9776 [17]	Pan-American Airways	Curacao via wayports.	July 18	Darien C-35 [17]	Scadta Airplane Co	Barranquilla, Colombia.
July 18	No. 8020 [17]	Pan-American Airways	Guayaquil via wayports.	July 18	Novian	Leyland S. S. Line	Liverpool via wayports.
July 19	Suriname	United Fruit Co	Bocas, R. P.	July 18	Metapan	United Fruit Co	New York via wayports.
July 19	Saramacca	United Fruit Co	New Orleans.	July 19	Eugenia D. [19]	Spencer Davis	Bluefields, Nicaragua
July 19	Atlantida	Standard Fruit & S. S. Co	New Orleans and Habana.	July 19	William M. [19]	G. I. Bryan	Bluefields, Nicaragua.
July 19	William M. [19]	G. I. Bryan	Colon, R. P.	July 19	Suriname	United Fruit Co	New Orleans, La.
July 19	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.	July 19	Manuel Arnus	Spanish Line	Barcelona and wayports.
July 19	Macabi	United Fruit Co	New York via wayports.	July 19	Saramacca	United Fruit Co	Port Limon via Bocas.

[16] Motor schooner. [17] Air mail carrier. [18] Motor boat. [19] Schooner. * Other than ships passing through the Canal.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.—Continued.

* ARRIVALS.				* DEPARTURES.			
Date.	Vessel.	Line.	From—	Date.	Vessel.	Line.	For—
July 20	Parismina	United Fruit Co	New Orleans via Habana	July 20	Atlantida	Standard Fruit & S. S. Co	New Orleans and wayp'ts.
July 20	No. 9688 [20]	Pan-American Airways	Managua via David.	July 20	Dorelin	Leyland S. S. Line	Port Limon, Costa Rica.
July 20	Inapaquina [21]	United Fruit Co	Colon, R. P.	July 20	No. 9685 [20]	Pan-American Airways	Managua via David.
				July 20	Macabi	United Fruit Co	New York via Kingston.

[20] Air mail carrier. [21] Motor boat.

PORT OF BALBOA.

July 17	Ginyo Maru	Nippon Yusen Kaisha	Hongkong, China.	July 17	Ginyo Maru	Nippon Yusen Kaisha	Valparaiso, Chile
July 17	Swiftsure	C. D. Mallory	Los Angeles, Calif.	July 18	Frost [24]	West India Oil Co	Talara, Peru.
July 18	H. M. Storey	Standard Oil Co. of Calif	Los Angeles, Calif.	July 19	Swiftsure	C. D. Mallory	Los Angeles, Calif.
July 17	Mary Pinchot [22]	Gifford Pinchot	Galapagos, Peru.	July 19	H. M. Storey	Standard Oil Co. of Calif	Los Angeles, Calif.
July 19	San Luis [21]	Chiriqui Land Co	Pto. Armuelles, R. P.	July 20	R-1 [25]	Peruvian Government	Callao, Peru.
July 19	A. B. De Obarrio [23]	Pacific Fruit Co	Bayano River, R. P.	July 20	R-2 [25]	Peruvian Government	Callao, Peru.
July 19	Dos Hermanos [23]	A. Valdez	Bayano River, R. P.	July 20	R-3 [25]	Peruvian Government	Callao, Peru.
July 19	Sambu [23]	Hans Elliot	Bayano River, R. P.	July 20	R-4 [25]	Peruvian Government	Callao, Peru.
July 19	Nya Gunnebo [23]	Hans Elliot	Bayano River, R. P.	July 19	A. B. De Obarrio [23]	Pacific Fruit Co	Panama Bay, R. P.
				July 19	Dos Hermanos [23]	A. Valdez	Panama Bay, R. P.
				July 20	San Luis [23]	Chiriqui Land Co	Pto. Armuelles, R. P.
				July 20	Sambu [23]	Hans Elliot	Panama Bay, R. P.

[22] Yacht. [23] Motor schooner. [24] Motor ship. [25] Submarine. * Other than ships passing through the Canal.

Supplement No. 10—Departmental Tariff "F."

THE PANAMA CANAL, PANAMA RAILROAD COMPANY,
EXECUTIVE OFFICE, BALBOA HEIGHTS, C. Z., *July 18, 1929.*

Item 3.—RENTAL OF GARAGES.

(Effective August 1, 1929.)

Change to read:

1. Stall in regular garage:

(a) With concrete or wood floor.....per month..... $4.00
(b) Without concrete or wood floor.....per month..... 3.50

Item 25.—FUEL AND DIESEL OILS.

Fuel Oil.

(Effective July 15, 1929.)

	Per barrel of 42 gallons.
At Balboa and Cristobal:	
1. To departments and divisions of The Panama Canal, Panama Railroad Company, and departments of the U. S. Army and Navy stationed at the Isthmus.....	$1.00
2. Vessels of the U. S. Army and Navy not stationed at the Isthmus.....	Commercial Tariff

H. BURGESS,
Governor, The Panama Canal,
President, Panama Railroad Company.

Notice to Mariners.

THE PANAMA CANAL EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., *July 20, 1929.*

No. 564.

PACIFIC ENTRANCE.

The following was received by the Hydrographic Office from the Lighthouse Subdivision, The Panama Canal:

Obstruction Spar Buoy, marking 30 ft. spot, 2,275 yards from San Jose Rock, bearing 105° is missing. Will be replaced as soon as equipment for handling is available.
(Signed) F. KARIGER, *Pilot in Charge.*

H. BURGESS,
Governor.

Provisions Required by Ships.

The Panama Canal Commissary Division, with facilities at Balboa and Cristobal for delivery of supplies to steamships, carries a complete line of provisions, such as meats, fruits, vegetables, eggs, butter, canned goods, cigars, cigarettes, tobacco, etc., which are sold to ships at the prices which are in effect for employees, no surcharge being added. Beef especially is available at low prices, hindquarters selling at 14½ cents per pound and forequarters at 11 cents per pound.

Orders may be placed in advance by radio for delivery on arrival, or at either terminal for prompt delivery or for delivery at the other terminal after transit. All vessels are boarded on arrival by a representative of the Commissary Division.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Atlantic to the Pacific, June, 1929.—Continued from page 721
(Figures represent tons of 2,240 pounds.)

From—	South America.						North America.							Asia.					Australasia.				Grand totals.	Per cent of total cargo.
	Chile.	Colombia.	Ecuador.	Peru.	West coast of South America.[1]	Total, South America.	West coast of United States.	West coast of Canada.	West coast of Central America.	West coast of North America.[1]	Balboa, C. Z.[2]	Hawaii.	Total, North America.	Japan.	China.	Philippines.	Far East.[1]	Total, Asia.	Australia.	New Zealand.	Australasia.[1]	Total, Australasia.		
North America:																								
United States—																								
North Atlantic ports	16,167	2,641	920	6,536	8,702	34,966	234,698		1,155		15	16,142	252,010	29,924	22,784	15,222	15,506	83,436	25,067	12,518		37,585	407,997	45.3
South Atlantic ports							1,878						1,878	1,654	660		4,513	6,827					8,705	1.0
Gulf ports	13,969	204	300	395	79	14,947	37,493	4,730	1,263		10	212	437	54,140	40,922	15,217	3,930	4,205	64,274	13,604		8,710	22,314	155,675	17.3
Totals, U. S.	30,136	2,845	1,220	6,931	8,781	49,913	274,074	4,730	2,418		10,227	16,579	308,028	72,500	38,661	19,152	24,224	154,537	38,671	12,518	8,710	59,899	572,377	63.6
Cristobal, C. Z.[2]	238	1,697	740	679	2,242	5,596	4,071		7,397		72		11,540										17,136	1.9
East coast of Canada							4,340	2,010					6,350						10,356	4,653		15,009	21,359	2.4
West Indies	16,893			50		16,943	4,075	6,001					10,076							7,450		7,450	34,469	3.8
East coast of Mexico and Central America	2,482					2,482	1,860						1,860										4,342	0.5
Totals, N. America	49,749	4,542	1,960	7,660	11,023	74,934	288,420	12,741	9,815		10,299	16,579	337,854	72,500	38,661	19,152	24,224	154,537	49,027	22,621	8,710	82,358	649,683	72.2
Europe:																								
British Isles	14,192	129	561	1,478	5,407	21,767	7,261	8,317	347		68		15,993						36,453			36,453	74,213	8.3
Belgium	2,970	205	598	170	2,284	6,227	26,457	3,633					30,090						6,929			6,929	43,246	4.8
Denmark					3,178	3,178	106	40	1,516				1,662										4,840	0.5
France	89				571	660	4,791	528					5,319								2,210	2,210	8,189	0.9
Germany	3,648	177	752	919	3,435	8,931	11,012	821			353		12,186										21,117	2.4
Holland	1,911		450	2,261	1,853	6,475	6,561	312					6,873										13,348	1.5
Italy	20		27	17	2,679	2,743	1,751	63	722				2,536										5,279	0.6
Norway and Sweden	7,080			8	4,693	11,781	10,318	163	2,042		1,678		14,201										25,982	2.9
Spain and Portugal			4	15	126	145																	145	
Europe[3]	1,186	201	679	42	22,491	24,594	3,917	4	5,020				8,941										33,535	3.7
Totals, Europe	31,096	712	3,036	4,910	46,717	86,501	72,174	13,881	9,647		2,099		97,801						43,382		2,210	45,592	229,894	25.6
East coast of S. America		133				133	5,339	37					5,376										5,509	0.6
Africa														7,500				7,500		6,800		6,800	14,300	1.6
Grand totals	80,845	5,387	5,026	12,570	57,740	161,568	365,933	26,659	19,462		12,398	16,579	441,031	80,000	38,661	19,152	24,224	162,037	49,027	74,803	10,920	134,750	899,386	100.0
Per cent of total cargo:																								
June, 1929	9.0	0.6	0.6	1.4	6.4	18.0	40.7	3.0	2.1		1.4	1.8	49.0	8.9	4.3	2.1	2.7	18.0	5.5	8.3	1.2	15.0	100.0	
June, 1928	5.2	1.3	0.3	1.8	4.5	13.1	43.4	4.4	1.9		0.1	0.5	50.3	10.4	4.1	1.5	5.7	21.7	5.7	7.4	1.8	14.9	100.0	
June, 1927	4.7	1.6	0.1	1.7	8.2	16.3	43.7	2.7	1.1	1.3	0.4	0.7	49.9	8.1	5.2	0.6	5.1	19.0	7.1	7.3	0.4	14.8	100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Origin and Destination of Cargo Passing Through the Panama Canal, from the Pacific to the Atlantic, June, 1929.

(Figures represent tons of 2,240 pounds.)

From—	North America.									Europe.											East coast of South America.	Egypt.	Africa.	Grand totals.	Per cent of total cargo.
	United States.																								
	North Atlantic ports.	South Atlantic ports.	Gulf ports.	Total, United States.	East coast of Canada.	West Indies.	East coast of Central America.	Cristobal, C. Z.[2]	Total, North America.	British Isles.	Belgium.	Denmark.	France.	Germany.	Holland.	Italy.	Norway and Sweden.	Spain and Portugal.	Europe.[1]	Total, Europe.					
South America:																									
Chile	177,074	14,900	11,068	203,042		1,323		66	204,431	25,886	15,114		5,119	5,612	6,539	820			27,550	86,640	14,475			305,546	20.1
Colombia	2,161			2,161				4,758	6,919		4			8					12					6,931	0.5
Ecuador	8,261			8,261				1,735	9,996					5	131	152		50	180	518	69			10,583	0.7
Peru	13,141	3,000		16,141	31,774			130	48,045	13,804	2,477		1,786	1,045		26	8,380		11,953	39,471				87,516	5.7
West coast of South America[1]								203	203	3	1,768		7			15			3	1,796				1,999	0.1
Totals, S. Amer.	200,637	17,900	11,068	229,605	31,774	1,323		6,892	269,594	39,693	19,363		6,912	6,670	6,670	1,013	8,380	50	39,686	128,437	14,544			412,575	27.1
North America:																									
West coast of Canada	38,729			38,729	18,805	6,726	388		64,648	44,375	229	100	1,701	7,006	3,029		4,663		8,302	69,405	892			134,945	8.9
W. coast, Cen. Amer.	69			69				3,550	3,619										119	119				3,738	0.2
West coast of U. S.	548,595	2,211	31,824	582,630		21,609	1,384	2,775	608,398	131,111		1,111	16,695	17,884	2,335		1,737	7,068	18,812	196,753	360			805,511	52.8
Hawaii	12,257		150	12,407					12,407	56	9									65				12,472	0.8
Totals, N. America	599,650	2,211	31,974	633,835	18,805	28,335	1,772	6,325	689,072	175,542	238	1,211	18,396	24,890	5,364		6,400	7,068	27,233	266,342	1,252			956,666	62.7
Asia:																									
China	4,026			4,026				500	4,526															4,526	4.3
Japan	2,770			2,770				48	2,818															2,818	0.2
Philippines	71,277		9,871	81,148					81,148															81,148	5.3
Far East[1]	574			574		7,450			8,024															8,024	0.5
Totals, Asia	78,647		9,871	88,518		7,450		548	96,516															96,516	6.3
Australasia:																									
Australia	9,408			9,408	2,025				11,433	270										270				11,703	0.8
New Zealand	2,587			2,587	133				2,720	30,314					622					30,936				33,656	2.2
Australia[1]	6,500			6,500					6,500										7,000	7,000				13,500	0.9
Totals, Australasia	18,495			18,495	2,158				20,653	30,584					622				7,000	38,206				58,859	3.9
Grand totals	897,429	20,111	52,913	970,453	52,737	37,108	1,772	13,765	1,075,835	245,819	19,601	1,211	25,308	31,560	12,656	1,013	14,780	7,118	73,919	432,985	15,796			1,524,616	100.0
Per cent of total cargo:																									
June, 1929	58.9	1.3	3.5	63.7	3.5	2.4	0.1	0.9	70.6	16.1	1.3	0.1	1.7	2.1	0.8	0.1	0.9	0.5	4.8	28.4	1.0			100.0	
June, 1928	56.8	0.8	3.5	61.1	2.1	2.8	0.2	2.8	69.0	16.8	1.5	0.2	0.8	2.3	3.2	1.3	0.6	0.7	2.4	29.8	0.1	0.6	0.5	100.0	
June, 1927	59.4	0.1	2.5	62.0	2.5	3.9	0.3	4.4	73.1	15.0	0.5	0.1	1.0	1.9	1.0	0.2	0.4		4.4	24.5	2.4			100.0	

[1] General cargo not routed so as to allow segregation between definite ports.

[2] Includes both local and transit cargo.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending July 20, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Cali	North German Lloyd		July 14		290
Wanks	Standard Fruit S. S. Co		July 14		58
Georgie	French Line		July 14		150
Magdalena	Hamburg-American Line		July 14		756⅝
Toloa	United Fruit Co	July 14	July 14	15	394
Laguna	Pacific Steam Nav. Co	July 14	July 14	3	236
Cartago	United Fruit Co		July 15		224
Uribe	Estrada G. Hermanos		July 15		335
Linda S	R. Feuillebois	July 15	July 15	(1)	30½
Santa Maria	Grace Line	July 15	July 15	11	60
Suriname	United Fruit Co	July 15	July 15	(1)	57½
Pensylvanie	French Line	July 15	July 16	51	174
Calamares	United Fruit Co	July 15	July 17	674	75
Amsterdam	Royal Neth. S. S. Co		July 16		456
Santa Therese	United Fruit Co		July 16		43
Kinderdijk	Holland-American Line	July 16	July 16	(1)	39
Almagro	Pacific Steam Nav. Co	July 16	July 17	305	74
Arana	Pacific Steam Nav. Co	July 16	July 17	53	176
Canadian Cruiser	Can. Nat. Steamships	July 16	July 17	17	(2)
Loriga	Pacific Steam Nav. Co	July 17	July 17	96	42
Novian	Leyland Line	July 17	July 18	(2)	139
Pacific Exporter	Furness, Withy & Co	July 17	July 18	(1)	375
Saint Louis	French Line	July 17	July 18	335	66
Metapan	United Fruit Co	July 17	July 18	359	284
Manuel Arnus	Spanish Line	July 17	July 19	148	59
Inapaquina	United Fruit Co	July 17	July 19	48	(2)
Ancon	Panama R. R. S. S. Line	July 17		3,728	
Eugenia D	H. Blackwood	July 18	July 18	(1)	2½
Rapot	North German Lloyd	July 18	July 19	323	52
Ebro	Pacific Steam Nav. Co	July 18	July 19	93	7
Dorelian	Leyland Line	July 18	July 20	801	(2)
Atlantida	Standard Fruit S. S. Co	July 19	July 20	231	394
Wanks	Standard Fruit S. S. Co	July 19		112	
Donau	North German Lloyd	July 19	July 19	(2)	131
William M	R. Feuillebois	July 19	July 19	(2)	33
Suriname	United Fruit Co	July 19	July 19	116	268
Saramacca	United Fruit Co	July 19	July 19	454	82
Macabi	United Fruit Co	July 19	July 20	365	388
Saint Jean	French Line	July 19	July 20	72½	66
La Perla	United Fruit Co	July 19	July 20	432	30
Baralt	Royal Neth. S. S. Co	July 19		337	
Margarethe Cords	Colombian Maritime Co	July 20	July 20	446	(2)
Knute Nelson	Norway-Pacific Line	July 20		343	
Murla	North German Lloyd	July 20		82	
Inapaquina	United Fruit Co	July 20		33	
Parismina	United Fruit Co	July 20		859	
City of San Francisco	Panama Mail S. S. Co		July 20		2,950
Cauca	National Navigation Co		July 20		158

[1] No cargo discharged. [2] No cargo laded.

Current Net Prices on Fuel Oil, Diesel Oil, and Coal.

Crude fuel oil is delivered to vessels at either Cristobal or Balboa, from tanks of The Panama Canal, for $1.50 per barrel of 42 gallons.

Diesel oil is sold by The Panama Canal at Cristobal at $1.80 per barrel.

Crude fuel oil and Diesel oil are also sold by private companies with tanks at the Canal terminals, at prices which will be quoted by them on application. The prices at present are as follows: Crude fuel oil, $1.20 per barrel at Balboa and $1.25 at Cristobal. Diesel oil, Balboa only, $1.80 per barrel.

Coal is supplied to steamships, including warships of all nations, delivered and trimmed in bunkers at $8.00 per ton of 2,240 pounds at Cristobal, and $11.00 at Balboa. For ships in transit through the Canal, which are directed to take coal at Balboa, for the convenience of The Panama Canal, $8.00 per ton at Balboa. When coal is delivered from lighters in quantities of 50 tons or more, the price is $9.00 per ton at Cristobal, $12.00 at Balboa. If less than 50 tons is taken from lighters, prices are $11.00 per ton at Cristobal and $14.00 per ton at Balboa with minimum charge for 20 tons and maximum charge not to exceed that for 50 tons at $9.00 Cristobal and $12.00 Balboa. For furnishing lump coal for galley use, or run of mine coal, in sacks, $6.00 additional per ton; but if vessel furnishes sacks $3.00 additional per ton.

Coal for cargo is sold only by special authority of the Governor, at prices quoted upon application.

For trimming on deck, between decks, or special trimming in bunkers for convenience of vessel, when requested, an additional charge of 90 cents per ton will be made for extra handling.

Deliveries of coal to individual ships can be made up to 1,500 tons per hour, as fast as it can be handled in the ship's bunkers. Oil deliveries can be made up to 5,500 barrels per hour, rate depending on gravity of oil, location of shore tanks, and ship's facilities for handling.

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Certificate.—By direction of the Governor of The Panama Canal the matter contained herein is published as statistical information and is required for the proper transaction of the public business.

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CANAL WORK IN JUNE, 1929.

The following is the report of the Governor to the Secretary of War, of Canal work in the month of June, 1929.

BALBOA HEIGHTS, C. Z., *July 20, 1929.*

The Honorable, the Secretary of War,
Washington, D. C.

SIR: I have the honor to submit the following report of The Panama Canal for the month of June, 1929, which closed the fiscal year ended June 30, 1929:

CANAL TRAFFIC FOR FISCAL YEAR.

The fiscal year 1929 was the fifteenth fiscal year of Canal operation. The number of vessels transiting the Canal, and the revenues collected in tolls for the year are as follows:

	No. of transits.	Tolls collected.
Commercial vessels	6,413	$27,127,376.91
Launches (under 20 tons)	167	1,512.39
Noncommercial vessels:		
United States Government	553	.....
Panaman Government	21	.....
Colombian Government	2	.....
Transiting for repairs	40	.....
Totals	7,196	27,128,889.30

If the 616 noncommercial vessels that transited the Canal during the year had paid tolls at commercial rates, the revenue would have been increased approximately as follows:

United States Government vessels	$1,031,272.17
All other	48,024.77
Total	1,079,296.94

The 6,413 commercial vessels carried 30,663,006 long tons of cargo, and the 783 noncommercial vessels and launches carried 119,369 long tons, making the total cargo through the Canal for the year of 30,782,375 long tons, or an average of 2,565,198 per month.

The fiscal year 1929 established new high records for ship tonnage (with the exception of United States net), tolls collected, and tons of cargo carried. The number of transits was 43 fewer than the number passing through during the fiscal year 1928, which is the record year for the number of commercial ships passing through the Canal. The peak month for the fiscal year 1929 was January with 603 transits. This was also the month of the greatest traffic since the opening of the Canal.

No appreciable differences occurred in the amount of traffic over the principal routes of trade as compared with the fiscal year 1928. A slight decline was noted in the United States intercoastal trade and the trade between Europe and North America, which was offset by small gains in the United States-South America, Europe-South America, and the United States-Far East routes.

The following tabulation gives a comparison of the traffic for the fiscal year 1929, as compared with the two previous fiscal years:

	Fiscal year, 1929.	Fiscal year, 1928.	Fiscal year, 1927.
Number of transits	6,413	6,456	5,475
Panama Canal net tonnage	29,837,794	29,458,634	26,227,815
United States net tonnage	22,793,847	22,863,796	20,565,596
Registered gross tonnage	37,464,792	37,202,874	33,555,817
Registered net tonnage	22,900,317	22,847,689	20,518,253
Tolls	$27,127,379 91	$26,944,499.77	$24,228,830.11
Tons of cargo	30,663,006	29,630,709	27,748,215

COMMERCIAL TRAFFIC [1]

The following tabulation shows the number of vessels, Panama Canal net tonnage, tolls, and tons of cargo carried by vessels transiting the Canal each month from the beginning of the fiscal year 1929, to the end of June, 1929, as compared with the same months in the previous year:

Month.	No. of vessels.		Panama Canal net tonnage.		Tons of cargo.		Tolls.	
	1927-8	1928-9	1927-8.	1928-9.	1927-8.	1928-9.	1927-8.	1928-9.
July	509	509	2,406,955	2,318,395	2,450,468	2,291,955	$2,215,515.99	$2,109,083.19
August	543	526	2,513,614	2,437,246	2,429,947	2,425,336	2,274,040.55	2,199,069.31
September	540	487	2,532,942	2,295,053	2,397,753	2,313,011	2,294,432.34	2,111,230.56
October	567	557	2,585,752	2,515,380	2,717,646	2,582,477	2,380,115.97	2,274,945.30
November	559	527	2,591,717	2,468,297	2,488,882	2,501,630	2,369,267.99	2,225,937.48
December	589	579	2,616,728	2,698,140	2,573,828	2,714,987	2,398,459.75	2,443,029.39
January	540	603	2,422,770	2,771,280	2,372,061	2,858,835	2,212,752.50	2,502,815.12
February	547	522	2,460,111	2,428,530	2,660,425	2,550,498	2,253,755.37	2,211,961.20
March	542	536	2,441,077	2,567,961	2,428,662	2,743,768	2,223,370.57	2,343,865.55
April	531	540	2,384,491	2,488,176	2,473,884	2,719,668	2,187,607.82	2,281,087.27
May	508	524	2,274,612	2,496,905	2,497,588	2,536,839	2,118,969.83	2,296,546.57
June	481	503	2,227,865	2,352,431	2,139,565	2,424,002	2,016,211.09	2,127,805.97
Totals	6,456	6,413	29,458,634	29,837,794	29,630,709	30,663,006	26,944,499.77	27,127,376.91

[1] Commercial traffic includes all ocean-going vessels paying tolls. Vessels in direct service of the United States, Panama, and Colombian Governments, including merchant vessels chartered by these Governments, and vessels transiting solely for repairs, do not pay tolls. Shipping Board vessels in commercial service pay tolls. Statistics on vessels not paying tolls are shown under "Noncommercial traffic."

CANAL TRAFFIC FOR JUNE, 1929.

NUMBER OF TRANSITS.

During the month of June, 1929, 503 commercial vessels and 10 small launches transited the Canal. In addition to these there were 30 vessels belonging to the United States Government, two vessels of the Panaman Government, and two vessels transiting solely for repairs, on which no tolls were collected, making a total of 547 transits for the month, or a daily average of 18.23.

Tolls on the 503 commercial vessels amounted to $2,127,805.97, and on the launches to $45.87, a total of $2,127,851.84, or a daily average on all traffic of $70,928.39.

The total numbers of craft of all kinds transiting the Canal during the month of June, 1929, as compared with the same month in 1928 and 1927, are shown in the following tabulation:

	June, 1929.	June, 1928.	June, 1927.
Commercial vessels	503	481	455
Launches (under 20 tons)	10	10	15
Noncommercial vessels:			
United States Government	30	39	84
Panaman Government	2	3	2
Vessels for repairs	2	6	1
Totals	547	539	557

In addition to the vessels listed above, Panama Canal equipment consisting of dredges, tugs, barges, launches, etc., was passed through the locks as follows:

	Northbound.	Southbound.	Totals.
Gatun	8	7	15
Pedro Miguel	48	37	85
Miraflores	40	36	76
Totals	96	80	176

COMMERCIAL TRAFFIC.

The following is a summary of the commercial traffic for June, 1929, as compared with the corresponding month in 1928 and 1927, and the monthly averages for the fiscal year ended June 30, 1929:

	June, 1929.	June, 1928.	June, 1927.	Average per month for fiscal year 1929.
Number of vessels	503	481	455	534
Panama Canal net tonnage	2,352,431	2,227,865	2,152,926	2,486,483
United States net tonnage	1,787,779	1,697,605	1,673,821	1,899,487
Registered gross tonnage	2,946,181	2,777,506	2,745,346	3,122,066
Registered net tonnage	1,797,003	1,700,156	1,680,513	1,908,360
Tolls	$2,127,805.97	$2,016,211.09	$1,970,377.97	$2,260,614.74
Tons of cargo	2,424,002	2,139,565	2,229,097	2,555,251

The average daily number of transits, tonnage, tolls, and cargo are shown in the folowing statement, in comparative form, commercial vessels only:

	Average per day.			Average per per day for fiscal year 1929.
	June, 1929.	June, 1928.	June, 1927.	
Number of transits	16.76	16.03	15.16	17.57
Panama Canal net tonnage	78,414	74,265	71,764	81,747
Tolls	$70,926.87	[1]$67,206.43	$65,679.26	$74,321.58
Tons of cargo carried	80,800	71,318	74,303	84,908

[1] Does not include $18 collected on supplemental bill.

AVERAGE TONNAGE, TOLLS, AND TONS OF CARGO PER VESSEL.

The average tonnage, tolls, and tons of cargo per vessel transiting the Canal during the month of June, 1929, as compared with June, 1928, and 1927, are shown in the following tabulation:

	Average per vessel.		
	June, 1929.	June, 1928.	June, 1927.
Panama Canal net tonnage	4,677	4,631	4,731
United States net tonnage	3,554	3,529	3,678
Registered gross tonnage	5,857	5,774	6,033
Registered net tonnage	3,572	3,534	3,693
Tolls	$4,230.23	[1]$4,191.67	$4,330.50
Tons of cargo (including vessels in ballast)	4,819	4,448	4,899
Tons of cargo (laden vessels only)	5,593	5,349	5,960

[1] Does not include $18 collected on supplemental bill.

TOLLS.

At present tolls are collected at rates of $1.20 per net ton for laden vessels and $0.72 per ton for vessels in ballast, computed on the basis of the Panama Canal rules of measurement, with the provisions that tolls shall not exceed $1.25 per ton nor be less than $0.75 per ton as determined in accordance with the United States rules for measurement of net registered tonnage. In order to ascertain the proper tolls charges it is necessary, therefore, that the net tonnage of vessels transiting the Canal be determined in accordance with both the Panama Canal and the United States rules of measurement.

Due to this limiting proviso, the tolls actually collected last month on laden vessels averaged $0.935 per net ton, Panama Canal measurement, and tolls on vessels in ballast averaged $0.723 per net ton, Panama Canal measurement.

Taking the traffic through the Canal for the month of June, 1929, the following tabulation shows a comparison of tolls actually collected on the basis of the Panama Canal rules of measurement at the proposed rates of $1.00 laden and $0.60 ballast. The traffic for the month is segregated by flag:

Nationality.	Tolls actually collected under present dual system.	Tolls that would have been collected under proposed rates of $1 laden and 60c ballast on basis of Panama Canal net tonnage.	Difference.	
			Increase.	Decrease.
Belgian	$5,177.50	$4,792.00		$385.50
British	579,900.55	619,845.80	$39,945.25	
Chilean	8,623.75	9,377.00	753.25	
Colombian	1,961.80	1,668.00		293.80
Danish	35,118.75	37,187.00	2,068.25	
Danzig	10,996.44	9,803.20		1,193.24
Dutch	49,066.80	59,607.00	10,540.20	
Finnish	2,202.00	1,835.00		367.00
French	35,075.00	35,146.00	71.00	
German	104,588.66	117,950.80	13,362.14	
Greek	6,426.25	8,001.00	1,574.75	
Italian	36,471.25	40,686.00	4,214.75	
Japanese	55,744.82	53,260.60		2,484.22
Norwegian	79,799.01	83,587.80	3,788.79	
Panaman	1,856.25	2,711.00	854.75	
Peruvian	2,086.05	1,734.80		351.25
Swedish	44,670.24	48,190.20	3,519.96	
United States	1,056,787.10	1,070,482.60	13,695.50	
Yugoslav	11,253.75	11,538.00	284.25	
Totals	2,127,805.97	2,217,403.80	94.672.84	5,075.01
Net increase for all traffic.			89,597.83	

The increase on vessels of United States registry would have been distributed with respect to channels of trade in which the vessels were engaged as follows:

United States intercoastal trade	$15,236.98
United States foreign trade	90.25
United States—Canal Zone trade	[1]1,631.73
Net increase	$13,695.50

[1] Denotes decrease.

RATIO OF CARGO TONNAGE TO NET TONNAGE.

The ratio of cargo tonnage to net tonnage, Panama Canal measurement of vessels transiting the Panama Canal in June, 1929, is shown in the following tabulation, segregated by nationality of vessels and direction of transit. Laden vessels only are included:

Nationality.	Atlantic to Pacific.	Pacific to Atlantic.	Totals.
Belgian	1.38		1.38
British	.90	1.20	1.04
Chilean	.62	.64	.63
Colombian	1.46	1.05	1.23
Danish	1.36	1.70	1.53
Danzig		1.86	1.86
Dutch	.86	1.37	1.13
Finnish		1.74	1.74
French	.84	1.66	1.17
German	.93	1.36	1.14
Greek		1.90	1.90
Italian	.21	.86	.49
Japanese	1.38	1.27	1.33
Norwegian	1.07	1.80	1.48
Panaman	1.34		1.34
Peruvian	1.27		1.27
Swedish	1.10	2.54	2.01
United States	.95	1.49	1.25
Yugoslav	1.60	1.86	1.76
Averages, June, 1929	.94	1.44	1.20
Averages, June, 1928	.87	1.43	1.16
Averages, June, 1927	.91	1.63	1.12

CLASSIFICATION OF VESSELS.

A further classification of vessels passing through the Canal during the month of June, is as follows:

Class.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of ships.	Panama Canal net tonnage.	Tolls.	No. of ships.	Panama Canal net tonnage.	Tolls
Tank ships:						
Laden	6	38,438	$38,759.35	47	255,980	$261,993.75
Ballast	46	246,230	177,450.69			
General cargo ships:						
Laden	201	917,584	839,834.50	179	802,861	743,408.15
Ballast	18	85,091	61,857.97	4	6,098	4,390.56
Noncargo-carrying ships:						
Yachts	1	50	37.50	1	99	73.50
Totals	272	1,287,393	1,117,940.01	231	1,065,038	1,009,865.96
Method of propulsion:						
Steam	200	943,072	836,987.29	184	843,997	802,931.03
Motor	70	342,332	278,726.27	46	219,206	204,732.93
Sail	1	343	251.25			
Sail (auxiliary)	1	1,646	1,975.20	1	1,835	2,202.00
Totals	272	1,287,393	1,117,940.01	231	1,065,038	1,009,865.96

Of the 384 steam-driven vessels, 268 were oil-burning, 111 coal burning, and 5 burned either oil or coal.

NONCOMMERCIAL TRAFFIC.

The following statement shows the number of transits and tonnage of vessels transiting the Canal free of tolls during the month of June, 1929. If tolls had been assessed against these vessels at commercial rates, the amount would have been approximately as indicated:

Class and nationality.	Atlantic to Pacific.			Pacific to Atlantic.		
	No. of transits.	Tonnage.	Tolls.	No. of transits.	Tonnage.	Tolls.
U. S. Naval vessels:						
Battleships				[1]1	27,000	$13,500.00
Cargo ships	[1]1	3,415	$4,268.75			
Cruisers	[2]2	12,100	6,050.00	[4]4	25,700	12,850.00
Minesweepers	[3]3	2,850	1,425.00	[3]3	2,850	1,425.00
Motor sailers	[1]1	10	7.50			
Submarines	[2]2	1,730	865.00	[2]2	1,730	865.00
Survey ships	[1]1	2,600	1,300.00	[1]1	2,600	1,300.00
U. S. Army vessels:						
Transports	[4]4	14,724	18,405.00	[3]3	11,270	14,087.50
Tugs	[3]1	46	34.50	[3]1	46	34.50
Totals, U. S. Government	15		32,355.75	15		44,062.00
Panaman Government vessels:						
Transports	[2]1	101	72.72	[2]1	101	72.72
Vessels for repairs:						
Tankers	[3]1	1,636	1,227.00	[3]1	1,636	1,227.00
Grand totals	17		33,655.47	17		45,361.72

[1] Indicates displacement tonnage. [2] Indicates Panama Canal net tonnage. [3] Indicates United States net tonnage.

The foregoing noncommercial vessels transiting the Canal during the month of June, 1929, carried cargo as follows: Atlantic to Pacific, 9,721 tons; Pacific to Atlantic, 1,700 tons; total, 11,421 tons.

LAUNCHES UNDER 20 TONS MEASUREMENT.

The following statement shows the number of launches under 20 tons measurement transiting the Canal during the month of June, 1929. These launches, although paying tolls, are excepted from statements concerning commercial traffic:

	Number.	Panama Canal net tonnage.	Tolls.	Tons of cargo.
Atlantic to Pacific	4	19	$19.02	
Pacific to Atlantic	6	28	26.85	1
Totals	10	47	45.87	1

STATEMENT OF TERMINAL OPERATIONS.

Details of the business transacted at the Atlantic and Pacific terminals of the Panama Canal during the month of June, 1929, are shown in the following tabulation:

		Cristobal.	Balboa.	Total.
Local cargo arriving	tons	97,139	37,202	134,341
Local cargo shipped	tons	8,840	1,155	9,995
Transit cargo arriving	tons	2,451,283	2,443,935	4,895,218
Transit cargo clearing	tons	2,462,641	2,426,723	4,889,364
Cargo received for transshipment	tons	33,560	271	33,831
Cargo transshipped	tons	35,735	269	36,004
"Canal Zone for Orders" cargo:				
Number of receipts issued		95	32	127
Number of withdrawals		457	172	629
Tons received		3,264	207	3,471
Tons withdrawn		2,112	218	2,330
Packages received		10,006	2,304	12,310
Packages withdrawn		6,290	2,686	8,976
Vessels supplied with bunker coal:				
Commercial, other than Panama Railroad Company		61	.....	61
Coal supplied to above vessels:				
Commercial, other than Panama Railroad Company	tons	16,984	.....	16,984
Coal issued miscellaneous:				
Panama Canal departments	tons	90	27	117
U. S. Army, including vessels	tons	159	11	170
Individuals and companies	tons	126	.....	126
Transferred to Navy	tons	38	.....	38
Total sales and issues	tons	17,397	38	17,435
Coal on hand June 1, 1929	tons	68,374	.....	68,374
Coal on hand July 1, 1929	tons	82,277	.....	82,277
Coal received during month	tons	31,300	.....	31,300
Coal received from Navy	tons	.....	38	38
Fuel oil issued from Panama Canal tanks:				
Panama Canal departments	bbls.	5,777.67	22,588.93	28,366.60
Panama Railroad Company	bbls.	272.42	.....	272.42
U. S. Army and Navy	bbls.	.....	539.85	539.85
Individuals and companies	bbls.	.....	300.37	300.37
Total sales and issues	bbls.	6,050.09	23,429.15	29,479.24
Fuel oil on hand, July 1, 1929	bbls.	13,281.80	8,211.77	21,493.57
Diesel oil received from Union Oil Company	bbls.	.....	3,259.24	3,259.24
Diesel oil issued during June	bbls.	121.31	3,259.24	[1]3,380.15
Diesel oil on hand, July 1, 1929	bbls.	16,451.49	493.25	16,944.74
Miscellaneous transfers	bbls.	461.56	665.26	1,126.82
Gasoline and kerosene pumped for the Panama Canal	bbls.	4,415.97	11,887.01	16,302.98
Gasoline pumped for individuals and companies	bbls.	4,148.72	42,544.30	46,693.02
Oil pumped for individuals and companies	bbls.	596,139.90	375,458.19	971,598.09
Oil pumped for U. S. Shipping Board	bbls.	.....	3,507.69	3,507.69
Oil pumped for U. S. Navy	bbls.	3,610.20	21,540.00	25,150.20
Total fuel oil, gasoline, and kerosene handled	bbls.	614,947.75	479,031.60	1,093,979.35
Admeasurement of vessels:				
U. S. equivalent certificates issued		27	4	31
Measured for Panama Canal net tonnage		10	1	11
Remeasured for Panama Canal net tonnage		23	2	25
Panama Canal net tonnage corrected		.....	3	3
U. S. equivalent tonnage corrected		14	6	20
Services of harbor equipment:				
Tugs, total operating hours		489	378	867
Launches, total operating hours		1,359	1,695½	3,054½
Revenue from tug service, pilotage, etc.:				
Tug revenue		$15,217.50	$11,052.50	$26,270.00
Pilotage		19,502.00	7,896.00	27,398.00
Seamen		12,658.00	10,740.00	23,398.00
Launch service		1,995.50	3,003.00	4,998.50
Wharfage		16,949.32	5,104.68	22,054.00
Ships measured		315.00	5.00	320.00
Miscellaneous		969.40	261.00	1,230.40
Ships repaired at Panama Canal shops:				
Commercial		55	10	65
U. S. Army and Navy		5	4	9
Panama Canal equipment		8	10	18
Totals		68	24	92

[1] 121.31 barrels handled by The Panama Canal.

	Cristobal.	Balboa.	Total.
Vessels dry docked:			
Commercial	3	3	6
U. S. Army and Navy	1	2	3
Panama Canal equipment	1	3	4
Totals	5	8	13
Clearances issued	299	280	579
Bills of health issued	300	281	581

ALL VESSELS ENTERING AND CLEARING PORT.

	Port of Cristobal.			Port of Balboa.		
	No. of ships.	Registered gross tonnage.	Registered net tonnage.	No. of ships.	Registered gross tonnage.	Registered net tonnage.
Ships entering.						
All vessels, including those transiting Canal	604	3,373,946	2,084,153	530	3,103,039	1,924,704
Vessels entering port but not transiting Canal	79	365,119	222,073	4	33,261	21,289
Vessels transiting Canal and handling passengers and cargo at terminal ports	111	673,369	401,875	102	563,410	340,164
Ships clearing.						
All vessels, including those transiting Canal	611	3,395,854	2,097,907	527	3,095,473	1,917,221
Vessels clearing port, but not transiting Canal	78	357,971	217,555	4	33,261	21,289
Vessels transiting Canal and handling passengers and cargo at terminal ports	115	677,402	404,810	102	563,646	340,282

MOVEMENT OF PASSENGERS.

	At Cristobal.			At Balboa.		
	First-class.	Others.	Total.	First-class.	Others.	Total.
Disembarking:						
From Atlantic ports	1,420	822	2,242	141	137	278
From Pacific ports	212	205	417	268	178	446
Total disembarking	1,632	1,027	2,659	409	315	724
Embarking:						
For Atlantic ports	1,651	990	2,641	99	192	291
For Pacific ports	303	211	514	311	352	663
Total embarking	1,954	1,201	3,155	410	544	954
Remaining on board:						
From Atlantic to Pacific ports	1,433	2,408	3,841	1,595	2,482	4,077
From Pacific to Atlantic ports	1,475	1,556	3,031	1,588	1,569	3,157
From Atlantic to Atlantic ports	789	248	1,037	.....	.....	.....
From Pacific to Pacific ports	.....	.....	.....	46	624	670
Total remaining on board	3,697	4,212	7,909	3,229	4,675	7,904
Total arriving	5,329	5,239	10,568	3,638	4,990	8,628
Total departing	5,651	5,413	11,064	3,639	5,219	8,858

PASSENGER-CARRYING VESSELS THROUGH CANAL.

	Total commercial vessels.	Passenger-carrying vessels.	Per cent of total transits.
Atlantic to Pacific	272	54	19.9
Pacific to Atlantic	231	55	23.8
Totals	503	109	21.6

In addition to the aforesaid, 79 passenger-carrying vessels called at the port of Cristobal and 2 at Balboa without transiting the Canal, making a total of 190 passenger-carrying vessels calling at Canal ports during the month.

COMMISSARY SALES TO VESSELS.

The following is a statement of commissary sales to vessels during the month of June, 1929:

	Ice.	Groceries.	Cold storage.	Laundry.	Miscellaneous.	Totals.
Sales at Cristobal to:						
Commercial vessels	$2,433.00	$10,145.54	$27,429.02	$347.62	$4,146.17	$44,501.35
Government vessels	79.20	901.47	8,414.57	43.19	801.18	10,239.61
P. R. R. vessels	9.45	103.18	1,605.63	649.23	369.00	2,736.49
Total sales, June, 1929	2,521.65	11,150.19	37,449.22	1,040.04	5,316.35	57,477.45
Total sales, June, 1928	1,924.66	9,061.12	28,958.14	842.89	5,848.02	46,634.83
Total sales, June, 1927	2,419.47	11,296.79	33,964.81	1,031.10	10,111.31	58,823.48
Sales at Balboa to:						
Commercial vessels	616.13	8,523.53	12,497.84	325.78	2,855.22	24,818.50
Government vessels	451.35	2,499.09	10,830.85	568.22	765.76	15,115.27
P. R. R. vessels				30.96		30.96
Total sales, June, 1929	1,067.48	11,022.62	23,328.69	924.96	3,620.98	39,964.73
Total sales, June, 1928	1,605.62	12,586.38	30,195.92	952.02	4,100.16	49,440.10
Total sales, June, 1927	2,248.59	11,795.32	25,613.13	898.36	4,877.53	45,432.93

The aggregate sales to Government vessels during the month was $25,354.88; to Panama Railroad vessels, $2,767.45; and to other commercial vessels, $69,319.85; making the total sales to all vessels, $97,422.18.

LOCK OPERATIONS.

The overhaul of the Pacific locks was completed on June 13th, and normal operation of all locks resumed on June 14th. The overhaul of the Pacific locks began on January 3, 1929, and required 5 months and 10 days to complete, which is considerably longer than the previous overhaul periods. This was due to additional items of complete installation of 60 new cylindrical valves, and the unhinging, inspection, and repair of a pair of miter gates.

The following tabulation shows the number of lockages, and the number of vessels passing through the locks during the month of June, 1929, as compared with the corresponding month in 1928 and 1927:

Locks. [1]	Number of lockages.						Comparative grand totals.		
	Commercial.			Noncommercial. [1]					
	North.	South.	Total.	North.	South.	Total.	June, 1929.	June, 1928.	June, 1927.
Gatun	225	251	476	10	10	20	496	473	483
Pedro Miguel	222	256	478	23	22	45	523	497	505
Miraflores	221	258	479	24	17	41	520	496	497
	Number of vessels put through locks.								
Gatun	231	272	503	37	32	69	572	553	597
Pedro Miguel	231	272	503	75	62	137	640	589	626
Miraflores	231	272	503	67	61	128	631	592	625

[1] Includes tolls-paying launches under 20 tons.

CLASSIFICATION OF NONCOMMERCIAL VESSELS.

	Gatun.	Pedro Miguel.	Miraflores.
Army and Navy vessels	38	39	39
Panama Canal equipment	15	85	76
Launches under 20 tons	12	9	9
Panaman Government vessels	2	2	2
Vessels for repairs	2	2	2

The total consumption of water for lockages, maintenance, and loss in leakage was as follows in June, 1929, as compared with the preceding month and the corresponding month in 1928:

	Gatun.	Pedro Miguel.	Miraflores.
	Cubic feet.	*Cubic feet.*	*Cubic feet.*
Lockages	1,905,760,000	1,572,570,000	1,529,620,000
Leakage	30,000,000	273,000,000	20,000,000
Maintenance			3,320,000
Totals, June, 1929	1,935,760,000	1,845,570,000	1,552,940,000
Totals, May, 1929	1,579,000,000	1,327,630,000	1,395,420,000
Totals, June, 1928	1,962,830,000	1,669,670,000	1,507,340,000

HYDROGRAPHY.

The hydrographic conditions in the Canal Zone and vicinity during the month of June, 1929, are shown in comparative form in the following tabulation:

	June.		June—Years of record.		
	1929.	1928.	Maximum.	Minimum.	Mean.
	C. f. s.	*C. f. s.*	*C. f. s.*	*C. f. s.*	*C. f. s.*
Discharge of Chagres River at Alhajuela	2,146	2,771	4,870	1,363	2,540
Maximum momentary discharge for the month	15,391	21,038	[1]63,900		
Gatun Lake watershed, total yield	5,268	7,159	10,391	4,670	6,589
Gatun Lake watershed, net yield	4,715	6,674	9,863	4,081	6,024
Draft on Gatun Lake for lockages and power	2,947	2,829	2,947	[2]1,138	[2]2,178

[1] June 14, 1909. [2] June, 1914, not included.

The total yield of the Gatun Lake watershed was 20 per cent below the 16-year June average, or 5,268 c. f. s., compared with an average of 6,589 c. f. s., and is one of the low June yields since the formation of Gatun Lake. Maximum and minimum total yields of record for June are 10,391 c. f. s. in 1927 and 4,670 c. f. s. in 1920, respectively. The lake varied from the minimum elevation of 83.12 feet on the 1st to the maximum of 84.08 feet on the 30th, averaged 83.61 feet, and ended at elevation 84.05 feet. Miraflores Lake varied from elevation 53.06 feet on the 15th to 54.30 feet on the 24th, averaged 53.72 feet, and ended at elevation 53.79 feet.

SEISMOLOGY.

Seismic disturbances were recorded during the month on the 16th, 20th, 27th and 28th.

ELECTRICAL DIVISION.

The gross generator output of the Gatun hydroelectric station for the month was 5,478,700 kilowatt hours, and the computed water consumption was 4,159,731,535 cubic feet. Continuous service was maintained at this station throughout the month. The Miraflores Diesel-electric station had a gross generator output of 3,800 kilowatt hours, and the fuel oil consumption was 14.03 barrels.

In addition to the usual operating and maintenance work performed, electrical additions or repairs were completed on 31 vessels during the month. There were 385 work orders issued during the month, as compared with 349 for the previous month.

MECHANICAL DIVISION.

During the month miscellaneous repairs were made on 68 vessels at Cristobal and 24 at Balboa. Five vessels were dry docked at Cristobal and 8 at Balboa. The Panama Canal tugs *Engineer* and *Favorite* were given a general overhaul. Work was carried forward on the United States Navy's submarine *S-14* and tug *Sciota*. Work was completed on the Army mine planters *Graham* and *Getty*.

MUNICIPAL ENGINEERING DIVISION.

Work was carried forward on several improvement projects in the cities of Colon and Panama, and in the Canal Zone. On the new Madden Road leading to the site of the Madden Dam, 22,000 cubic yards of material were moved in connection with the grading, and a 20-foot bridge was completed over Quebrado Roque. At the site of the Madden Dam the operation of diamond drills was continued through the month.

The usual maintenance work was performed on roads, streets, walks, and the sewer and water systems. The amount of water pumped during the month totaled 699,289,250 gallons.

DREDGING DIVISION.

On June 21st, a slide occurred in Gaillard Cut between stations 1755 and 1760, east bank (East Barge Repair Slide), in which a total of approximately 250,000 cubic yards were involved. The toe of this slide reached a point 20 feet west of the center line at station 1757-50, leaving a depth of 38 feet on the center line on a frontage of 100 feet. One dipper dredge was brought to bear on this slide the same day and a second dredge started work on the following day. By 6.30 a. m. on the 22d, the slide was cleared back to the center line, giving a navigable channel of 40 feet in depth for half the channel, which depth was maintained for the rest of the month. Two dipper dredges worked 16 days, excavating 82,700 cubic yards during the remainder of the month. On July 1st, a navigable channel of 40 feet in depth and 200 feet in width was available past the slide.

On June 30th, a bank break occurred in Gaillard Cut between stations 1819 and 1822-50, west bank (Signal Station Slide). Material in this slide pushed out 70 feet east of the west prism line on a frontage of approximately 300 feet. A total of approximately 30,000 cubic yards was involved, consisting of large pieces of rock. A dredge was despatched to this point and worked one day, excavating 5,200 cubic yards from the slide.

West Lirio slide showed a slight general movement during the month. A dipper dredge worked two days on this slide, excavating 8,250 cubic yards of material.

South Cucaracha slide showed a general surface movement during the month.

A perceptible movement along the water front occurred at West Culebra slide between stations 1794-00 and 1780-00. A maximum movement of 16 feet was recorded at station 1791-00 with an average movement of 4.3 feet toward the Canal between the above stations. These movements were recorded on West Culebra baselines. The back portions showed no movement.

There was a slight general movement toward the Canal over East Culebra slide during the month.

There were no other slides and no delays to shipping during the month.

The total excavation during June, 1929, was 569,692 cubic yards, as follows:

	Wet excavation.		
	Earth.	Rock.	Total.
Work excavation:			
Canal prism, Gaillard Cut—			
Project No. 2	.....	8,650	8,650
Project No. 9	5,900	39,000	44,900
Lirio slide	1,250	7,000	8,250
East Barge slide	9,100	73,600	82,700
Maintenance	10,450	8,000	18,450
Signal Station slide	500	4,700	5,200
Canal prism, Pacific entrance—			
Project No. 1 (extension)	100,000	.....	100,000
Project No. 1	44,000	.....	44,000
Maintenance	9,000	.....	9,000
Balboa inner harbor—			
Project No. 1	.....	41,500	41,500
Maintenance	4,000	11,800	15,800
Plant excavation:			
Albrook Field	189,600	.....	189,600
Dredging sand at Chame	1,642	.....	1,642
Totals	375,442	194,250	569,692

The ferry crossing at the north end of Pedro Miguel locks operated 30 days during the month. Five hundred and sixteen trips were made, and 53 Panama Canal, 53 U. S. Army, and 3,104 other vehicles, a total of 3,210 were ferried across the Canal.

SCHOOLS.

The school year terminated June 30, 1929. There were 95 graduates from the high schools—61 at Balboa and 34 at Cristobal. Of the 98 American teachers, 13 resigned at the close of the school year, and the remaining teachers were granted 99 days' leave without pay.

The following brief summary shows the enrollment, average attendance, etc., in the white and colored schools of the Canal Zone for the year ended June, 1929, as compared with June, 1928:

	White.		Colored.		Totals.	
	1929.	1928.	1929.	1928.	1929.	1928.
Net enrollment	2,762	2,585	3,103	3,030	5,865	5,615
Average daily attendance	2,355.4	2,262.5	2,581.2	2,592.7	4,936.6	4,855.2
Number of teachers	98	87	61	60	159	147

OCCUPANTS OF QUARTERS.

The number of persons, including men, women, and children, occupying Panama Canal quarters on June 30, 1929, totaled 21,819, composed of 7,554 Americans, 2,705 of whom were men, 2,257 women, and 2,592 children; 238 Europeans, 95 of whom were men, 37 women, and 106 children; and 14,027 West Indians, 4,189 of whom were men, 2,620 women, and 7,218 children. The total number of persons in quarters on June 30, 1928, was 21,403.

WORKING FORCE.

The following tabulation shows the number of gold and silver employees as of June 19, 1929, with a comparison of the working force for the preceding month and for June, 1928:

	As of June 19, 1929.			Total employees.	
	Gold.	Silver.	Total.	May, 1929.	June, 1928.
Operation and Maintenance:					
Office	45	61	106	107	80
Electrical	154	158	312	321	336
Municipal Engineering	108	1,604	1,712	1,885	777
Lock Operation	253	751	1,004	1,279	933
Dredging	194	1,010	1,204	1,183	1,061
Mechanical	446	881	1,327	1,275	1,250
Marine	213	643	856	911	912
Fortifications	28	337	365	559	301
Totals	1,441	5,445	6,886	7,520	5,650
Supply Department:					
Quartermaster	205	1,940	2,145	2,135	1,941
Subsistence	8	103	111	112	113
Commissary	230	1,281	1,511	1,501	1,349
Cattle Industry	4	157	161	155	136
Hotel Washington	8	99	107	114	102
Transportation	66	223	289	294	262
Totals	521	3,803	4,324	4,311	3,903
Accounting Department	203	7	210	206	201
Health Department	277	859	1,136	1,097	1,145
Executive Department	522	297	819	812	794
Totals	1,002	1,163	2,165	2,115	2,140
Panama Railroad Company:					
Superintendent	49	279	328	328	344
Transportation	66	122	188	194	186
Receiving and Forwarding Agency	97	1,440	1,537	1,608	1,411
Coaling Stations	49	235	284	327	288
Totals	261	2,076	2,337	2,457	2,229
Grand totals, June, 1929	3,225	12,487	15,712	.....	.....
Grand totals, May, 1929	3,254	13,149	.....	16,403	.....
Grand totals, June, 1928	3,038	10,884	.....	.....	13,922

Additions to the gold force on the Isthmus in June were as follows: Employed in the United States, 11; reemployed in the United States, 2; employed on the Isthmus, 39; reemployed on the Isthmus, 15; total, 67. Separations from the gold force totaled 48, as follows: Resigned, 34, discharged, 11; retired, 1; died, 2. At the end of the month there were on file 284 applications from residents of the Isthmus for employment.

VITAL STATISTICS.

A total of 185 deaths occurred during the month of June, 1929, among the population of the Canal Zone, and the cities of Panama and Colon, which is equivalent to an annual death rate of 17.14 per 1,000 population. The leading causes of death were: Tuberculosis (various organs), 27; pneumonia (broncho and lobar), 22; nephritis (acute and chronic), 18; diarrhea and enteritis, 15; and organic diseases of the heart, 13. There were 6 deaths from cancer, 5 from apoplexy, and 1 each from dysentery, measles, leprosy, and meningococcus meningitis. There were 19 deaths among non-residents. These are not included in the above statistics.

There were 261 live births, and 16 stillbirths, reported during the month. Including stillbirths, this is equivalent to an annual birth rate of 25.67 per 1,000 population. Deaths among children under 1 year of age numbered 38, giving an infant mortality rate based on the number of live births reported, of 149.43.

The total number of malaria cases reported from the Zone and the cities of Panama and Colon during June was 227, of whom 32 were employees (6 white and 26 colored), 22 were families of employees (2 white and 20 colored), 10 were Canal Zone agriculturists, 29 were other civilian nonemployees, and 134 were Army and Navy personnel.

There was 1 death from malaria, a colored civilian employee of the Army.

RECEIPTS AND SALES OF MATERIAL AND SUPPLIES.

The value of material ordered on United States requisitions and received on the Isthmus during the month totaled $304,550.58, of which $267,475.56 was for the Department of Operation and Maintenance and $37,075.02 for other Panama Canal departments.

Cash sales on the Isthmus from stock, fuel oil, scrap and obsolete and second-hand material amounted to $37,739.83.

FINANCIAL STATEMENT.

The following statement shows in a condensed form the aggregate revenue and expenditures for the month of May, 1929, as compared with May, 1928, together with the figures for the first 11 months of the fiscal year 1929, as compared with the same period in the fiscal year 1928.

It is impossible to submit the figures for the month of June at the time of writing this report, since all charges, etc., involved in the accounting have not been completed.

	May, 1929.	May, 1928.	To end of May.	
			This year.	Last year.
Tolls	$2,296,679.18	$2,119,060.28	$24,995,682.49	$24,927,235.77
Other receipts	365,232.86	312,579.05	3,666,130.75	3,263,699.07
Total transit revenues	2,661,912.04	2,431,639.33	28,661,813.24	28,190,934.84
Total transit expenses	1,161,631.49	1,091,719.76	12,213,878.36	11,214,897.54
Net transit revenues	1,500,280.55	1,339,919.57	16,447,934.88	16,976,037.30
Three per cent capital charge	615,491.05	613,650.27	6,773,085.55	6,729,552.81
Transit surplus	884,789.50	726,269.30	9,674,849.33	10,246,484.49
Business revenues	1,423,458.25	1,495,486.86	15,722,727.25	15,363,349.97
Business expenses	1,331,195.44	1,441,546.83	14,737,242.14	14,567,759.17
Net business revenues	92,262.81	53,940.03	985,485.11	795,590.80
Three per cent capital charge	62,670.92	59,950.23	712,286.14	707,520.90
Business surplus	29,591.89	[1] 6,010.20	273,198.97	88,069.90
Combined revenues	4,085,370.29	3,927,126.19	44,384,540.49	43,554,284.81
Combined expenses	2,492,826.93	2,533,266.59	26,951,120.50	25,782,656.71
Net revenues	1,592,543.36	1,393,859.60	17,433,419.99	17,771,628.10
Three per cent capital charge	678,161.97	673,600.50	7,485,371.69	7,437,073.71
Combined surplus	914,381.39	720,259.10	9,948,048.30	10,334,554.39

[1] Indicates deficit.

Respectfully,

H. BURGESS,
Governor.

Facilities for Shipping.

The Panama Canal is equipped with all the facilities for the fueling, supply, and repair of ships which are found in modern ports.

The coaling plants, with an aggregate storage capacity of 700,000 tons, can bunker ships up to 1,500 tons an hour, practically as fast as it can be handled in ships' bunkers. Oil can be delivered as fast as the ships can take it, from 46 tanks aggregating approximately 2,361,040 barrels of storage capacity. Crude fuel oil, Diesel oil, and gasoline are sold.

The ships' chandlery storehouses carry a wide variety of marine supplies and spare parts. The commissary stores sell foodstuffs, fresh meats, fruits, and vegetables, as well as clothing and a general line of goods for supplying about 30,000 people resident on the Isthmus. Ice plants, a large laundry, hotels, hospitals, and restaurants serve the passengers and crews of ships.

A 1,000-foot dry dock, capable of receiving the largest ships built, a smaller dry dock, floating cranes, foundry, and amply equipped shops, employing about 1,100 men, provide means of making practically any kind of marine repairs.

Ample space exists at either terminal of the Canal for the berthing of vessels, as well as large covered piers for the storage of cargo. These are modern structures, fireproof, ratproof, in splendid condition, well lighted and maintained in a clean and orderly condition.

In general, the services to shipping at the Canal are such as have been developed and found ample and effective in the course of handling large traffic through the Canal in over 13 years of operation.

Pan American Airways Traffic for June.

A total distance of 25,051 miles flown with 257 hours in the air was recorded by the Cristobal Division of the Pan-American Airways, Inc., for the month of June, 1929. The route over which this flying was done covers the distance between Cristobal and Managua, Nicaragua, stops being made at Panama City and David. The organization states that all flights were made on schedule time, and no mishaps of any nature were experienced.

At present the company is accepting passengers between Cristobal (and Panama City) and David. The total number of passengers carried between these points during the month totaled 351, and the company reports that the business in July will likely more than double the figures for June.

Notice to Mariners.

Radio Beacon, Cristobal Mole, Cristobal, C. Z.

(Correction to N. M., 570 of July 26, 1929.)

THE PANAMA CANAL EXECUTIVE DEPARTMENT,
BALBOA HEIGHTS, C. Z., *July 27, 1929.*

No. 570 (a).

(Revised)

A radio beacon was established near the west end of the Cristobal Mole, July 20, 1929.

Position of center line of towers:

East Tower: Latitude 9° 21′ 23.23″
Longitude 79° 55′ 01.34″

West Tower: Latitude 9° 21′ 23.76″
Longitude 79° 55′ 3.75″

Azimuth of aerial.....102° 16′ 30″ from the true north.
Period of operation.....First ten minutes of each whole half hour.
Frequency.....305 kilocycles.
Characteristics.....76 long dashes per minute.

The two towers (whose heights are each 80 feet above the ground, at approximate elevation 92 feet above the sea) are each surmounted by a fixed red light, consisting of a cluster of three 50-watt electric lamps; the towers are painted horizontally in successive colors of yellow, black, and white.

H. BURGESS,
Governor.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Balboa, C. Z., for Two Weeks Ending July 27, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Martha	Chr. Hannevig	July 13	July 14		248
Santa Maria	Grace Line	July 14	July 15		E
Swiftsure	Farmers Loan & Trust Co	July 17	July 18	11,000	
Ginyo Maru	Nippon Yusen Kaisha	July 17	July 17	226	
Loriga	Pacific Steam Nav. Co	July 17	July 17		50
H. M. Storey	Standard Oil Co	July 18	July 19	15,000	
Virginia	Panama-Pacific Line	July 19	July 19		169
City of San Francisco	Panama Mail S. S. Co	July 20	July 20		1
Cambrai	U. S. Army	July 20	July 23	464	80
Cauca	National Navigation Co	July 20	July 20		34
Martha	Chr. Hannevig	July 21	July 22	30	
Knute Nelson	Fred Olsen & Co	July 21	July 22	1,191	
Venezuela	Panama Mail S. S. Co	July 22	July 23	200	
Santa Cruz	Grace Line	July 22	July 22		1
Colombia	Panama Mail S. S. Co	July 22	July 23	590	2
Australien	East Asiatic Co	July 24	July 24	257	
Breda	Royal Neth. S. S. Co	July 25	July 26	115	
Santa Teresa	Grace Line	July 25	July 25	1	
President Garfield	Dollar Line	July 26	July 26		6

MOVEMENTS OF OCEAN VESSELS.

Week ending at midnight, July 27, 1929.

THROUGH THE CANAL—ATLANTIC TO PACIFIC.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Baralt	19	17.10	21	6.05	21	14.12	21	15 20	Dutch	Royal Neth. S. S. Co	260 0	33 1	12 6	Cristobal, C. Z	Guayaquil, Ecuad'r	General	103	1,183	742
Pacific Fir	20	21.10	21	6 15	21	13 12	21	14 20	American	Dimon S. S. Corp.	410 5	54 0	19 0	New York, N. Y	Tacoma, Wash	General	4,848	6,624	4,883
El Aleto [1] [2]	20	22.30	21	6.25	21	14 12	21	18 15	British	Imperial Oil Co	440 8	57 5	21 0	Halifax, N. S	Talara, Peru	Ballast		7,555	5,049
K. R. Kingsbury [1]	21	2.45	21	7 20	21	14 55	21	15 58	American	Standard Oil Co	440 0	58 2	21 0	Baltimore, Md	Los Angeles, Calif	Ballast		9,033	5,938
Lena Luckenbach	21	2.55	21	7.45	21	15.51	21	17.10	American	Luckenbach Line	425 0	53 8	20 0	New Orleans, La	Tacoma, Wash	General	2,907	7,217	5,295
Malayan Prince [2]	21	6.00	21	8.55	21	16 44	21	17 45	British	Prince Line, Ltd.	441 6	60 0	24 0	New York, N. Y	Yokohama, Japan	General	5,500	9,209	6,245
Toas [1] [3]	21	10.30	21	10 35	21	17.47			Venezuelan	Venezuela Gulf Oil Co.	280 4	47 3	9 3	Las Piedras, Venez.	Balboa, C. Z	Ballast			
Sachsen	20	12.02	21	12.15	21	19 06	21	20 00	German	Hamburg-American Line	468 8	58 3	25 6	Hamburg, Germany	Vancouver, B. C.	General	7,267	9,624	6,732
Knute Nelson [2]	20	18 30	21	13 25	21	19 55	23	1 40	Norwegian	Fred Olsen & Co	436 0	56 0	21 0	Oslo, Norway	Vancouver, B. C.	General, bananas	4,914	8,016	5,854
Murla	20	6.47	21	15.15	21	21 53	22	1 05	German	Roland Line	449 0	58 0	25 0	Hamburg, Germany	San Antonio, Chile	General	6,495	7,756	5,378
Bronxville [2]	21	13.55	21	16.50	22	9 40	22	13 15	Norwegian	A. F. Klaveness & Co	386 3	54 2	24 10	Antwerp, Belgium	Los Angeles, Calif	Cement clinkers	7,974	6,715	5,058
Watertown [1]	21	17 25	22	6 15	22	12 40	22	17 05	American	Cities Service Trans. Co.	416 9	56 2	18 0	New York, N. Y.	Los Angeles, Calif	Ballast		6,717	4,778
Santa Cruz	21	18.35	22	6 00	22	13 28	22	16 25	American	Grace Line	384 0	50 2	19 6	New York, N. Y	Callao, Peru	General	1,779	5,534	3,868
El Lobo [1]	21	22.25	22	7.15	22	14 04	22	15 10	British	Atlantic Refining Co	385 2	51 0	18 6	Philadelphia, Pa.	La Libertad, Ecua	Ballast		4,851	3,326
Munaires	22	3.25	22	7.23	22	15 04	22	16 20	American	Munson S. S. Line.	370 0	53 0	22 6	Baltimore, Md	Tacoma, Wash	General	5,726	5,577	4,225
Gargoyle [1]	22	6.47	22	8 25	22	15 26	22	16 35	American	Vacuum Oil Co.	425 0	57 0	23 6	Philadelphia, Pa.	San Francisco, Cal.	Ballast		7,510	4,989
La Perla	22	8 00	22	9 30	22	15 55	23	3 07	American	United Fruit Co	325 0	48 0	19 8	Port Limon, C. R.	San Francisco, Cal.	Bananas, coffee	570	4,033	2,261
Greylock	22	5 10	22	10.15	22	17 16	22	18 30	American	Isthmian S. S. Line	430 7	54 3	28 0	Baltimore, Md	Tacoma, Wash	General, steel	9,020	7,946	5,698
Port Curtis	22	5 45	22	11.05	22	18 37	22	20 15	British	Com'lth & Dom. Line.	450 0	58 0	27 0	New York, N. Y	Bunbury, Australia	General	6,600	8,500	6,140
Colombia	21	17 30	22	12.05	22	19 25	23	17 45	American	Panama Mail S. S. Co.	380 0	48 7	22 0	New York, N. Y	San Francisco, Cal.	Coffee, general	1,909	6,015	4,281
Raranga	22	00 15	22	13 40	22	21 15	22	23 30	British	Shaw, Savill & Albion.	478 0	63 2	29 2	Glasgow, Scotland	Wellington, N. Z.	General	8,441	11,070	7,931
David McKelvy [1]	22	15.40	22	15.50	22	22 22	22	23 30	American	Tidewater Oil Co	430 0	59 2	20 0	New York, N. Y	San Francisco, Cal.	Ballast		7,629	5,325
Swan [4]			22	6.35	22	13 33			American	U. S. Navy	180 0	35 6		Cristobal, C. Z	Balboa, C. Z	Ballast			
Gen. G. W. Getty [5]			22	6.40	22	14 00			American	U. S. Army	89 0	22 0		Cristobal, C. Z	Balboa, C. Z	Ballast			
West Montop	22	18.15	22	19 05	23	21 15	23	10 37	American	Quaker Line	410 0	54 4	25 0	Philadelphia, Pa.	Seattle, Wash	General	7,521	6,484	4,675
Rimutaka	22	19.15	23	6 00	23	13 40	23	14 55	British	N. Z. Shipping Co	457 7	58 0	29 6	London, England	Wellington, N. Z	General	7,040	9,201	6,961
Toba Maru	23	2.00	23	7.15	23	14 38	23	15.45	Japanese	Nippon Yusen Kaisha	445 0	58 0	25 0	Philadelphia, Pa.	Kobe, Japan	General	8,262	8,058	5,743
Marsodak	23	7 25	23	8.50	23	15.32	23	16.45	American	Nelson Line	324 0	46 0	19 0	Baltimore, Md	Seattle, Wash	([6])	3,150	3,984	2,628
Texas	22	16.35	23	11 04	23	17 52	23	19.10	French	French Line	409 0	52 3	24 0	Havre, France	Vancouver, B. C.	General, steel	3,522	6,824	4,885
Australien [2]	23	13.35	24	6 05	24	13 53	25	00 50	Danish	East Asiatic S. S. Co.	410 0	55 0	26 3	Copenhagen, Den.	Vancouver, B. C.	General	7,852	7,031	5,338
Scotscraig	23	16 45	24	6 25	24	14 47	25	16 00	British	Andrew Weir & Co	350 0	51 0	26 2	Galveston, Texas	Port Kembla, Aust.	Sulphur	6,000	4,892	3,647
Texan	23	21.35	24	7.10	24	15 31	25	16 45	American	Amer.-Hawaiian Line	471 0	57 2	21 0	Boston, Mass	Seattle, Wash	General	5,507	9,154	6,966
Sylvafield [1] [2]	23	22.45	24	7.20	24	16.13	24	17 45	British	Desmarics Freres	395 0	52 5	18 0	Cette, France	Los Angeles, Calif	Ballast		5,900	3,993

[1] Tanker. [2] Motor ship. [3] Dry docking. [4] Mine sweeper. [5] Tug. [6] General, steel, and pipe.

Point Fermin	24	1 30	24	8 20	24	16 25	24	17 45	American	Swayne & Hoyt	324.0	46.0	23.1	Galveston, Texas	San Francisco, Cal.	General	3,522	3,984	2,617
Steel Trader	24	1 40	24	8 20	24	17 20	24	18 40	American	Norton, Lilly & Co	424.0	56.0	26.0	New York, N. Y.	Shanghai, China	General, steel	7,567	7,611	5,450
Singapore Maru	24	3 45	24	9 40	24	18 13	24	19 38	Japanese	Kokusai Kisen Kaisha	385.0	51.0	26.0	Baltimore, Md	Shanghai, China	General	6,923	5,914	4,426
Paul Luckenbach	24	5 20	24	9 45	24	17 55	24	19 18	American	Luckenbach Line	471.0	59 6	22.6	Boston, Mass	Seattle, Wash	General	5,706	9,027	6,539
Nosa Queen	23	13 30	24	13 10	24	20 18	24	21 09	American	N. O. & S. A. S. S. Co.	324.0	46.0	17.6	New Orleans, La.	Corral, Chile	General	1,957	3,981	2,600
Santa Teresa	24	19 30	25	6 15	25	13 05	25	15 40	American	Grace Line	360.0	51 6	23.7	New York, N. Y.	Talcahuano, Chile	General	2,499	5,726	4,086
Yorkmar	24	15 45	25	7 15	25	14 47	25	16 00	American	Calmar Line	409 8	54.2	26 0	Baltimore, Md	Seattle, Wash	Steel, general	8,393	6,757	4,919
Montrolite [1] [2]	24	19 25	25	8 23	25	15 40	26	1 51	British	Imperial Oil Co	510 0	68 0	22 0	Halifax, N. S.	Talara, Peru	Ballast		11,555	6,753
Laurel Branch	25	00 45	25	9 42	25	16 37	26	3 05	British	F. & W. Ritson	360 0	46.0	17.0	Liverpool, England	Corral, Chile	General	1,309	4,182	3,047
Tynefield [1] [2]	25	7 40	25	10 50	25	16 57	25	20 28	British	Anglo-American Oil Co.	395 0	54 5	18 0	Barrow-in-Furness	Los Angeles, Calif.	Ballast		6,056	4,206
Boskoop	24	17 05	25	13 10	25	20 21	25	22 00	Dutch	Royal Neth. S. S. Co.	400 6	58 3	27 6	Hamburg, Germany	Corral, Chile	General	6,888	7,817	6,097
Hampton Roads [1]	25	17 10	25	18 40	26	8 55	26	9 56	American	Richfield Oil Co	430 0	59 2	18 0	New York, N. Y.	Los Angeles, Calif	Ballast		8,093	5,347
L-55 [7]			25		25	14 46			American	U. S. Army				Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Orduna	25	16 25	26	6 37	26	13 36	26	15 10	British	Pacific Steam Nav. Co	550 0	67 0	29 7	Liverpool, England	Talcahuano, Chile	General	5,123½	17,146	12,015
Salvador	14	16 55	26	6 20	26	14 18			British	Pacific Steam Nav. Co	215 0	33.0	17 8	Cristobal, C. Z.	Champerico, Guat	General	1,137½	1,270	735
Denver [8]	25	14 10	26	6 00					American	U. S. Navy	292 0	44.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast			
Sciota [5]			26	6 00	26	15 45			American	U. S. Navy	149 3	30.0		Cristobal, C. Z.	Balboa, C. Z.	Towing raft			
President Garfield	26	6 15	26	7 50	26	14 29	26	22 38	American	Dollar Line	502 0	62 0	28.6	New York, N. Y.	San Francisco, Cal.	General	6,940	12,583	9,207
Narenta	25	6 00	26	7 20	26	15 08	26	16 05	British	Royal Mail S. S. Co.	450 0	58 0	22 3	Rotterdam, Holland	Portland, Oreg.	General, bananas	3,819½	8,856	6,559
Rolling Stone [9]	26	7 40	26	7 40	26	15 03			Panaman	Robert Wilcox	48 0	11 6		Cristobal, C. Z.	Balboa, C. Z.	Ballast		27	20
Canadian Prospector	26	7 52	26	8 15	26	16 10	26	17 15	British	Can. Nat. Steamships	400.0	52 0	16 6	Montreal, Canada	Vancouver, B. C.	General	935	5,893	4,068
Thurland Castle [3]	26	6 48	26	11 35	26	17 51	27	19 16	British	James Chambers & Co	464 4	60 3	25 6	New York, N. Y.	Nagasaki, Japan	General, case oil	6,379		
Newton Ash	26	9 25	26	11 45	26	20 15	26	21 54	British	Andrew Weir & Co	374 0	54 8	24 8	Galveston, Tex.	Sydney, Australia	Sulphur	6,502	5,133	3,621
Marore	25	20 35	26	12 45	26	19 25	26	20 36	American	Ore S. S. Corp.	550 3	72.2	21 0	Baltimore, Md	Cruz Grande, Chile	Ballast		15,551	4,297
Lancaster	26	11 00	26	13 15	26	21 14	26	22 38	American	Argonaut S. S. Line	434 0	57 7	27 0	Mobile, Ala	Portland, Oreg	Steel	9,185	7,935	5,841
Broad Arrow [1]	26	13 45	26	14 30	26	21 55	26	23 05	American	Standard Transp. Co.	467.8	62 7	20.6	New York, N. Y.	Los Angeles, Calif.	Ballast		9,700	6,804
East Lynn [3]	26	18 00	26	18 30	27	11 35	27	12 05	British	Sir W. R. Smith & Sons	401.1	54.0	24.10	Pt. Arthur, Tex.	Shanghai, China	([12])	7,994	6,784	5,107
Caldas [3]	25	15 48	27	6 05	27	13 39	27	21 11	Colombian	National Navigation Co.	116 0	21 0	9.0	Cristobal, C. Z.	Buenaventura, Col.	General	198	211	124
Oklahoma	26	1 10	27	6 05	27	13 41	27	15 00	French	French Line	400 0	51 0	21 0	Havre, France	San Antonio, Chile	General	3,415	6,014	4,477
Sulanierco	26	18 25	27	7 13	27	14 37	27	15 55	American	Transmarine Line	324 0	46 2	20 0	Mobile, Ala	San Francisco, Cal.	General	2,201	3,894	2,628
Finn [3]	26	22 25	27	7 30	27	14 40	27	15 55	Swedish	Colombian Mar. Co.	271.0	41 0	13 0	New York, N. Y.	Buenaventura, Col.	General	537	2,472	1,513
San Camilo [1] [10]	27	7 15	27	8 20	27	15 32			British	Eagle Oil Transp. Co.	305 0	52.0	11 6	Aruba, D. W. I.	Balboa, C. Z.	Ballast			
Guayaquil	25	20 10	27	8 40	27	15 36	27	16 40	American	Panama R. R. S. S. Line	251.0	43 6	16 2	New York, N. Y.	Guayaquil, Ecuad'r	General	591	2,874	1,944
Martha [4]	22	15 50	27	9 25	27	17 43	27	19 30	Norwegian	H. C. Stevenson	181 0	30 0	11 0	Cristobal, C. Z.	Pt. Arinuelles, R.P.	General	380	780	504
Tainui	27	1 30	27	12 56	27	19 40	27	21 11	British	Shaw, Savill & Albion	477 8	61 1	29 6	London, England	Wellington, N. Z.	General	4,500	10,657	7,617
Lycia [2]	27	10 20	27	14 20	27	21 06	27	23 06	British	Canadian Transp. Co.	300 0	44 0	21 9	Barbados, B. W. I.	Vancouver, B. C.	Sugar and salt	3,870	3,333	2,207
Gen. Wm. M. Graham [11]			27	8 35	27	17 45			American	U. S. Army	156.0	32.0		Cristobal, C. Z.	Balboa, C. Z.	Ballast			

[1] Tanker. [2] Launch. [3] Cruiser. [5] Yacht. [10] Dry docking. [11] Mine planter. [12] Kerosene and lubricating oil.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.

Sunbeam [1]	20	17 25	21	6 39	21	13 48	21	13 48	American	Sun Oil Co	429 3	59.2	26.0	Los Angeles, Calif.	Philadelphia, Pa.	Gasoline	9,414	7,709	5,562
Acajutla	21	00 20	21	7 05	21	15 10			British	Pacific Steam Nav. Co	215 7	33.6	14.6	San Jose, Guate.	Cristobal, C. Z.	Coffee, general	644	1,273	706
Orleans	21	4 10	21	8 06	21	16 20	21	16 20	American	Pacific-Atlantic S. S. Co	395.3	55.0	26 4	Portland, Oreg	Wilmington, Del.	([13])	7,864	7,330	5,233
Canadian Importer	21	6 20	21	8 59	21	17 10	21	20 50	British	Can. Nat. Steamships	400 5	52.4	24.3	Vancouver, B. C.	Montreal, Canada	Lumber	6,350	5,891	4,186

[1] Tanker [13] Lumber, paper, pulp.

MOVEMENTS OF OCEAN VESSELS.—Continued.

THROUGH THE CANAL—PACIFIC TO ATLANTIC.—Continued.

Ship.	Arrived at port.		Entered Canal.		Completed transit.		Cleared for sea.		Nationality.	Operator.	Length.	Beam.	Salt water draft.	From—	For—	Cargo.		Panama Canal tonnage.	
	Day.	Hour.	Day.	Hour.	Day.	Hour.	Day.	Hour.								Nature.	Tons.	Gross.	Net.
Urdaneta [1] [14]	10	22.30	21	9.54	21	17.50	21	17.50	Venezuelan	Venzuelua Gulf Oil Co.	305.0	50.0	11.8	Balboa, C. Z	Maracaibo, Venez	Ballast			
Derbyline [1]	21	5.00	21	11.17	21	19.00	21	19.00	American	Texas S. S. Co	435 0	56.0	27.1	Los Angeles, Calif	Houston, Tex	Crude oil	10,300	7,446	5,173
Larry Doheny [1]	21	11.45	21	12 37	21	20.35	21	20.35	American	Richfield Oil Co	430 0	59 2	25 0	Los Angeles, Calif	New York, N. Y	Gasoline	9,700	7,494	5,263
Hazel Branch	21	12.30	21	13.17	21	21.10	21	21.10	British	F. & W. Ritson	400 4	51 2	23.0	Valparaiso, Chile	Liverpool, England	General	6,016	5,208	3,578
Chastine Maersk [15]	21	13.00	21	14.12	21	22.05	21	22.05	Danish	A. P. Moller	367 1	48 3	25 6	Manila, P. I	North of Hatteras	Sugar	7,500	5,526	4,066
Gen. G. W. Getty			21	8.28	21		22	6.40	American	U. S. Army	98 0	22 0		Balboa, C. Z	Cristobal, C. Z	Tug			
Santa Cecelia	21	18.15	22	6.30	22	12.45	22	17.45	American	Grace Line	408.0	55 2	20 0	Callao, Peru	New York, N. Y	([16])	2,620	6,672	4,905
Glentworth	21	22 30	22	6.55	22	14.30	22	14.30	British	Canadian Transp. Co	450 0	55.0	25.3	Vancouver, B. C.	Boston, Mass	Lumber	7,250	7,999	5,867
Martha [15]	21	13.50	22	6.58	22	15.50			Norwegian	Chr. Hannevig, Sr	181 0	30 0	10 6	Pt. Armuelles, R.P.	Cristobal, C. Z	Ballast		780	504
Essequibo	22	6.05	22	7.44	22	15.50	22	22.05	British	Pacific Steam Nav. Co	450 0	57.8	23 5	Talcahuano, Chile	New York, N. Y	General	2,805	9,158	6,176
Loreto [15]	21	17.30	22	8 33	22	17.10	22	20.15	British	Pacific Steam Nav. Co	420 0	54 0	26 0	Talcahuano, Chile	Liverpool, England	Nitrates, general	8,307	7,334	5,037
Georgian	22	10.45	22	11.35	22	18.35	22	18.35	American	Quaker Line	386 5	52 2	24 6	Aberdeen, Wash	New York, N. Y	Lumber	6,600	5,719	4,023
Bradclyde	22	14.15	22	14.53	22	23.20	23	00.50	British	Sir W. R. Smith & Sons	400 0	53 0	25 9	Portland, Oreg	Dublin, Ireland	Wheat	8,028	5,883	4,118
Venezuela	22	7.55	23	6.15	23	13.20	24	00.15	American	Panama Mail S. S. Co.	380 0	48 7	21 5	San Francisco, Cal.	New York, N. Y	General	2,714	6,033	4,356
New York [1]	22	15.45	23	6.16	23	14.00	23	14.45	American	The Texas Co	416 8	56 1	26.0	Los Angeles, Calif	Baltimore, Md	Gasoline	8,621	6,807	5,047
Ani	22	19.40	23	7.33	23	15.45	23	18.30	Belgian	Cie. Inter. D'Comm. & D'Armament.	400 5	52 0	28.6	Iquique, Chile	Alexandria, Egypt	Nitrates	8,160	6,617	4,792
Eurana	22	20.00	23	8.01	23	16.00	23	16.00	American	Isthmian S. S. Lines	399 7	56 2	27.0	Englewood, B. C	Baltimore, Md	([17])	8,566	7,381	5,595
Theodore Roosevelt [15]	23	3 30	23	9.08	23	16.45	24	00.55	Norwegian	Fred Olsen & Co	425 5	55.2	27.6	Vancouver, B. C.	Oslo, Norway	General	8,728	7,593	5,637
Bosworth	23	6.30	23	9.17	23	17.45	23	19.30	British	Henry M. Thomson	412 0	55 5	28 2	Vancouver, B. C.	Hull, England	Lumber, wheat	9,950	6,778	4,837
Delaware Sun [1]	23	8.20	23	9 54	23	18.30	23	18.20	American	Sun Oil Co	480.5	66.0	27.6	Los Angeles, Calif	Chester, Pa	Gasoline	12,105	9,405	6,586
Cambrai	20	16.00	23	10.18	23	17.35	24	11.07	American	U. S. Army	448 0	58.0	25 0	Balboa, C. Z	New York, N. Y				
Minnesotan	23	13.00	23	13 28	23	20.30	23	20 30	American	Amer.-Hawaiian Line	407 7	53 7	23 0	Los Angeles, Calif	New York, N. Y	General	5,381	7,150	5,024
Ruapehu	23	14 00	23	15.00	23	22.50	24	12.30	British	N. Z. Shipping Co	457 3	58.2	20 0	Pt. Chalmers, N. Z.	London, England	Frozen, general	3,149	9,079	6,798
Seminole [1] [15]	23	3.50	24	6.09	24	14.20	24	14.20	British	Anglo.-Amer. Oil Co	424 5	57.0	26 2	Los Angeles, Calif	Ellesmere, England	Gasoline	9,400	7,012	5,022
George W. Barnes [1]	23	9.30	24	6.39	24	14.40	24	14.40	American	Huasteca Petroleum Co.	416 8	56 1	26.0	Los Angeles, Calif	Baltimore, Md	Gasoline	9,540	6,783	4,759
Solana [1]	23	20.20	24	7.24	24	15.15	24	16.15	American	Associated Oil Co	419 5	56 5	26 0	San Francisco, Cal.	New York, N. Y	Gasoline	8,821	7,060	5,025
Ipswich	23	19.15	24	7.49	24	16.25	24	16.25	American	Argonaut S. S. Co	400.7	54.2	25 0	Honolulu, T. H.	New Orleans, La	Sugar	8,035	6,616	4,614
Atlantic City	23	19 30	24	8.19	24	16 55	24	16.55	British	Sir W. R. Smith & Sons	411.7	54 5	25.6	Vancouver, B. C.	Manchester, Eng	General	7,200	6,555	4,659
Robert Luckenbach	23	23.16	24	8.57	24	17.40	24	17.40	American	Luckenbach Line	445.0	58.0	27.6	Portland, Oreg	Philadelphia, Pa	Lumber, general	8,712	8,695	6,375
Durazzo	24	3.00	24	9.10	24	18.17			German	Hamburg-American Line	227 0	45 5	12 2	Guayaquil, Ecuad'r	Cristobal, C. Z	([18])	96	1,633	1,041
Manizales	24	4.15	24	9.15	24	18.15			German	North German Lloyd	216 6	32 9	12.0	Guayaquil, Ecuad'r	Cristobal, C. Z	Coffee	65	1,132	741
Stella	24	4.25	24	9.40	24	18.45			Norwegian	Panama Mail S. S. Co.	195.1	32.9	12.3	Puntarenas, C. R.	Cristobal, C. Z	Ballast		985	606
Nyanza	24	6.00	24	9.43	24	18.50	24	18.50	British	Wessel, Duval & Co	402.7	52.2	24.0	Cruz Grande, Chile	Baltimore, Md	Iron ore	7,665	5,583	4,073

[1] Tanker. [14] South July 10th for dry docking only. [15] Motor ship. [16] Copper lead, general. [17] Lumber, ore, general. [18] Cocoa, rice, coffee.

Texmar	24	5.20	24	10.11	24	19.15	24	19.15	American	Calmar S. S. Corp.	410.5	54.3	25.3	Tacoma, Wash.	Baltimore, Md.	Lumber	7,132	6,567	4,909
England Maru	24	6.20	24	10.52	24	19.51	24	19.51	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.0	Iloilo, P. I.	East coast, U. S.	Sugar	7,968	6,214	4,665
Dinteldijk [15]	24	11.05	24	12.20	24	21.00	25	00.15	Dutch	Holland-American Line	485.0	62.0	29.3	Vancouver, B. C.	Rotterdam, Holland	General	9,353	10,786	7,551
Asuka Maru [15]	24	11.00	24	13.41	24	22.10			Japanese	Nippon Yusen Kaisha	440.4	57.0	27.0	Cebu, P. I.	Boston, Mass.	Bulk oil, general	11,243	8,139	5,389
Sidney M. Hauptman	24	13.15	24	15.09	24	22.55	24	22.55	American	McCormick S. S. Co.	401.5	53.2	26.6	Seattle, Wash.	Baltimore, Md.	Lumber, general	7,699	7,082	5,167
Denver [19]			25	6.04	25	14.10	25	6.00	American	U. S. Navy	292.0	44.0		Balboa, C. Z.	Cristobal, C. Z.	Cruiser			
San Claudio [1 20]	16	13.47	25	6.18	25	13.45	24	13.45	British	Eagle Oil Transp. Co.	305.0	51.2	10.2	Balboa, C. Z.	Aruba, D. W. I.	Ballast			
Feltre [15]	25	1.30	25	6.40	25	15.30	25	21.20	Italian	Nav. Libera-Tricstina	430.0	53.0	27.2	Vancouver, B. C.	Trieste, Italy	General	8,745	7,195	6,041
Caldas [15]	24	17.15	25	6.55	25	15.48	27	6.05	Colombian	Cia. Nac. de Nav. Co.	116.0	21.1	8.0	Buenaventura, Col.	Cristobal, C. Z.	([27])	2361lbs	211	124
Sciota [21]			25	8.27	25	15.30			American	U. S. Navy	155.0	30.0		Balboa, C. Z.	Cristobal, C. Z.	Tug			
Chetopa	25	9.30	25	10.55	25	18.25	27	13.57	American	Chas. Nelson & Co.	324.0	45.2	23.0	San Francisco, Cal.	New York, N. Y.	General	4,700	3,984	2,628
Phobes [1 15]	25	12.10	25	12.58	25	19.55	24	19.55	Dutch	Anglo-Saxon Pet. Co.	440.2	59.4	26.7	San Francisco, Cal.	Curacao, D. W. I.	Fuel oil	9,245	7,935	5,065
San Jose	25	9.13	25	11.07	25	18.40	27	14.15	American	United Fruit Co.	330.0	44.5	18.6	San Francisco, Cal.	Port Limon, C. R.	Gasoline, general	597	3,675	2,359
Esperanza [22]	25	12.45	25	14.32	25	20.50	25	4.05	Norwegian	Lars Thorsen	339.7	44.0	23.0	Cedros Is., Mexico.	Sandefjord, Norw'y	Whale oil	1,102	4,446	2,890
Centaurus	25	14.45	25	15.51	26	12.00	25	12.00	American	Isthmian S. S. Lines	409.8	54.2	24.0	Seattle, Wash.	New York, N. Y.	Lumber	7,000	6,581	4,795
Pacific Hemlock	25	16.30	25	17.22	26	12.47	26	12.47	American	Dimon S. S. Corp.	409.8	54.2	24.4	Seattle, Wash.	Baltimore, Md.	Lumber	6,799	6,630	4,916
L-10 [21]			25		25				American	U. S. Army				Balboa, C. Z.	Cristobal, C. Z.				
Breckenridge [21]			25	8.30	25				American	U. S. Army				Balboa, C. Z.	Cristobal, C. Z.				
S-16 [24]			26	6.16	16	13.05			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-17 [24]			26	6.16	26	13.05			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
Swan [21]			26	6.13	26	13.50			American	U. S. Navy	188.0			Balboa, C. Z.	Cristobal, C. Z.				
alisco	24	11.45	26	6.47	26	17.45	26	17.45	Mexican	National Navigation Co.	305.0	45.0	14.0	Guaymas, Mexico	Progreso, Mexico	Rice, sugar	1,140	3,021	2,159
Oreoma	26	5.20	26	8.09	26	16.45	27	00.10	British	Pacific Steam Nav. Co.	511.6	62.2	27.0	Talcahuano, Chile	Liverpool, England	Nitrates, general	5,717	12,417	8,305
Havel [15]	26	6.30	26	8.07	26	18.50	27	00.45	German	North German Lloyd	469.2	61.1	28.0	Seattle, Wash.	Hamburg, Germany	Lumber, general	8,582	9,305	6,790
Invella	26	8.30	26	10.00	26	19.35	26	20.10	British	Inter. Freight Lines	400.1	52.2	25.0	Tocopilla, Chile	Jacksonville, Fla.	Nitrates	7,670	5,665	3,986
Breda	25	21.55	26	10.30	26	19.40	26	21.40	Dutch	Royal Neth. S. S. Co.	402.6	58.3	27.8	San Antonio, Chile	Hamburg, Germany	General	8,622	7,384	4,769
Orazio [15]	26	8.15	26	14.50	26	21.45	28	15.18	Italian	Nav. Gen. Italiana	506.6	61.8	24.2	Valparaiso, Chile	Genoa, Italy	General	2,485	12,977	9,373
Skagerak [1 15]	26	12.15	27	6.26	27	13.30	27	13.30	German	Atlantic Tank Rhederei	428.0	55.0	25.4	San Francisco, Cal.	Land's End, Engl'd	Gasoline	8,519	6,412	4,186
Virginian	26	19.05	27	6.46	27	14.00	27	14.00	American	Amer.-Hawaiian Line	491.5	58.2	26.6	Seattle, Wash.	Boston, Mass.	General	7,662	10,491	7,601
California Standard [1 15]	26	21.25	27	6.58	27	15.05	27	21.25	American	Standard Oil Co. of Cal.	513.5	68.2	28.6	Los Angeles, Calif.	London, England	Gasoline	16,032	11,719	8,619
S-11 [24]			27	7.52	27	16.35			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-12 [24]			27	7.52	27	16.35			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
S-13 [24]			27	7.52	27	16.35			American	U. S. Navy	231.0	20.0		Balboa, C. Z.	Cristobal, C. Z.				
Mallard [25]			27	7.58	27	16.35			American	U. S. Navy				Balboa, C. Z.	Cristobal, C. Z.				
S-20 [24]			27	7.58	27	16.35			American	U. S. Navy				Balboa, C. Z.	Cristobal, C. Z.				
Buenaventura	27	3.20	27	8.45	27	19.00	28	11.20	American	Panama R. R. S. S. Line	251.0	43.0	16.0	Guayaquil, Ecuad'r.	New York, N. Y.	([28])	1,122	2,873	1,776
Solstad [1 15]	26	23.45	27	8.00	27	17.55	27	17.55	Norwegian	A. F. Klaveness & Co.	391.0	53.7	26.0	Los Angeles, Calif.	Hamburg, Germany	Gasoline	7,942		
Benrinnes	27	6.00	27	9.12	27	19.40	27	21.05	British	Ben Line Steamers	405.0	51.5	23.0	Chemainus, B. C.	Belfast, Ireland	Lumber	5,365	5,097	3,476
Chateau Thierry [26]	26	7.00	27	11.12	27	17.30	27	17.30	American	U. S. Army	448.0	56.0	25.0	Honolulu, T. H.	New York, N. Y.	Army supplies	299		
Toas [1 20]	21	17.47	27	13.15	27	19.50	27	19.50	Venezuelan	Venezuela Gulf Oil Co.	280.4	47.3	13.6	Balboa, C. Z.	Maracaibo, Venez.	Ballast			
El Ciervo [1]	27	13.00	27	13.55	27	21.50	28	00.55	British	C. T. Bowring & Co.	407.4	52.4	25.6	La Libertad, Ecua.	Philadelphia, Pa.	Crude oil	7,920	6,046	4,326
Aden Maru	27	14.15	27	15.05	27	22.20	28	00.05	Japanese	Kokusai Kisen Kaisha	385.0	51.0	27.5	Iloilo, P. I.	New York, N. Y.	Sugar	7,550	6,203	4,672

[1] Tanker. [19] Cruiser. [20] South for dry docking. [21] Tug. [22] Whale tanker. [23] Launch. [24] Submarine. [25] Tender. [26] Transport.
[27] Platinum, gold, precious stones. [28] Coffee, tagua, general.

All hours are expressed on the 24-hour basis and all hours greater than 12 are postmeridian.

MOVEMENTS OF OCEAN VESSELS.—Continued.

PORT OF CRISTOBAL.

* ARRIVALS.

Date.	Vessel.	Line.	From—
July 21	Laila	Gulf-Caribbean S. S. Line	Houston, Texas.
July 21	Calamares	United Fruit Co	Port Limon, Costa Rica.
July 22	Camden	United Fruit Co	Curaçao, D. W. I.
July 22	Pastores	United Fruit Co	New York via Habana.
July 22	Peron	French Line	St. Nazaire via wayports.
July 22	No. 9685 [29]	Pan-American Airways	Managua via David.
July 23	Van Renselaer	Royal Neth. S. S. Co	Amsterdam via wayports.
July 23	Mayan	Gulf-Caribbean S. S. Line	Tampa via wayports.
July 23	Linda S. [30]	A. L. Sturgeon	Colon, R. P.
July 24	Norman Bridge	American Pet. Transp. Co	Aruba, D. W. I.
July 24	Colombia C-28 [29]	Scadta Airplane Co	Barranquilla, Colombia.
July 24	Sixaola	United Fruit Co	New York via Kingston.
July 25	Anachucuna [31]	United Fruit Co	Colon, R. P.
July 25	Inapaquina [31]	United Fruit Co	Colon, R. P.
July 25	Copename	United Fruit Co	New Orleans and wayp'ts.
July 25	Median	Leyland S. S. Line	Liverpool via wayports.
July 25	No. 9776 [29]	Pan-American Airways	Willemstadt and wayp'ts.
July 25	No. 9688 [29]	Pan-American Airways	Managua via wayports.
July 25	No. 8020 [29]	Pan-American Airways	Guayaquil via wayports.
July 25	Calgarelite	Imperial Oil Co	South Shields, England.
July 26	Saramacca	United Fruit Co	Port Limon, Costa Rica.
July 26	Amapala	Standard Fruit & S. S. Co	New Orleans via Habana.
July 26	Van Renselaer	Royal Neth. S. S. Co	Port Limon, Costa Rica
July 26	Anachucuna [31]	United Fruit Co	Colon, R. P.
July 27	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
July 27	Managui	United Fruit Co	New York via wayports.
July 27	Rugia	Hamburg-American Line	Tampico via wayports.
July 27	Heredia	United Fruit Co	New Orleans via Habana.
July 27	No. 9685 [29]	Pan-American Airways	Managua via David.

* DEPARTURES

Date.	Vessel.	Line.	For—
July 21	Wanks	Standard Fruit & S. S. Co	San Blas, R. P.
July 21	Calamares	United Fruit Co	New York via Habana.
July 21	Ancon	Panama R. R. S. S. Line	New York via Haiti.
July 21	Laila	Gulf-Caribbean S. S. Line	Houston via wayports.
July 22	Parismina	United Fruit Co	New Orleans via wayp'ts.
July 23	Camden	United Fruit Co	Port Limon, Costa Rica.
July 23	No. 9776 [29]	Pan-American Airways	Willemstadt via wayports.
July 23	No. 9685 [29]	Pan-American Airways	Managua via David.
July 23	No. 8020 [29]	Pan-American Airways	Guayaquil via wayports.
July 23	Linda S. [30]	A. L. Sturgeon	Bluefields, Nicaragua.
July 24	Peron	French Line	Havre via wayports.
July 24	Van Renselaer	Royal Nether. S. S. Co	Port Limon, Costa Rica.
July 24	Mayan	Gulf-Caribbean Line	Houston via wayports.
July 24	Pastores	United Fruit Co	Port Limon, Costa Rica
July 25	Norman Bridge	American Pet. Transp. Co	Aruba, D. W. I.
July 25	No. 9685 [29]	Pan-American Airways	Managua via David.
July 25	Colombia C-28 [29]	Scadta Airplane Co	Barranquilla, Colombia.
July 25	Sixaola	United Fruit Co	New York via wayports
July 25	Anachucuna [31]	United Fruit Co	Colon, R. P.
July 25	Inapaquina [31]	United Fruit Co	Colon, R. P.
July 26	Copename	United Fruit Co	Puerto Colombia.
July 26	Median	Leyland S. S. Line	Port Limon, Costa Rica.
July 26	Saramacca	United Fruit Co	New Orleans, La.
July 26	Anachucuna [31]	United Fruit Co	Colon, R. P.
July 27	Amapala	Standard Fruit & S. S. Co	New Orleans and wayp'ts.
July 27	No. 9688 [29]	Pan-American Airways	Managua via David.
July 27	Van Renselaer	Royal Neth. S. S. Co	Amsterdam via wayports.
July 27	Managui	United Fruit Co	New York via Kingston.

[29] Air mail carrier. [30] Motor schooner. [31] Motor boat.

PORT OF BALBOA.

July 26	A. B. de Obarrio [32]	Pacific Fruit Co	Bayano River, R. P.
July 26	Sambu [32]	Hans Elliot	Bayano River, R. P.
July 26	Dos Hermanos [32]	A. Valdez	Bayano River, R. P.
July 26	San Luis [32]	Chiriqui Land Co	Pto. Armuelles, R. P.
July 26	Guardian [33]	All America Cables	Callao, Peru.

July 26	A. B. de Obarrio [32]	Pacific Fruit Co	Panama Bay, R. P.
July 26	Sambu [32]	Hans Elliot	Panama Bay, R. P.
July 26	Dos Hermanos [32]	A. Valdez	Panama Bay, R. P.
July 27	San Luis [32]	Chiriqui Land Co	Pto. Armuelles, R. P.
July 27	Guardian [33]	All America Cables	High seas.

[32] Motor schooner. [33] Cable ship. * Other than ships passing through the Canal.

Report of Cargo Discharged and Laded by Vessels Entering and Clearing from Port of Cristobal, C. Z., for Week Ending July 27, 1929.

Name of vessel.	Line or charterer.	Arrived.	Departed.	Cargo—	
				Discharged	Laded.
				Tons.	*Tons.*
Ancon	Panama R. R. S. S. Line		July 21		895
Wanks	Standard Fruit & S. S. Co		July 21		2
Baralt	Royal Neth. S. S. Co		July 21		103
Sachsen	Hamburg-American Line		July 21		228
Knute Nelson	Norway-Pacific Line		July 21		203
Murla	North German Lloyd		July 21		554
Calamares	United Fruit Co	July 21	July 21	21	54
Laila	Gulf-Caribbean S. S. Line	July 21	July 21	317	8
Santa Cruz	Grace Line	July 21	July 22	(1)	21
Colombia	Panama Mail S. S. Co	July 21	July 22	600	101
Acajutla	Pacific Steam Nav. Co	July 21		644	
Parismina	United Fruit Co		July 22		101
Santa Cecelia	Grace Line	July 22	July 22	68	42
Camden	United Fruit Co	July 22	July 22	4,602	(2)
Essequibo	Pacific Steam Nav. Co	July 22	July 22	7	32
Texas	French Line	July 22	July 23	46	20
Pastores	United Fruit Co	July 22	July 24	402	48
Perou	French Line	July 22	July 24	143	795
Martha	H. C. Stevenson	July 22	July 27	(1)	480
Linda S	R. Feuillebois	July 23	July 23	(1)	40
Mayan	Gulf-Caribbean S. S. Line	July 23	July 24	364	(2)
Nosa Queen	N. O. & S. A. S. S. Co	July 23	July 24	87	775
Venezuela	Panama Mail S. S. Co	July 23	July 24	296	74
Theodore Roosevelt	Norway-Pacific Line	July 23	July 24	(1)	189
Van Renselaer	Royal Neth. S. S. Co	July 23	July 24	58½	19
Australien	Danish East Asiatic Line	July 23	July 24	36	(2)
Boskoop	Royal Neth. S. S. Co	July 24	July 25	399	330
Asuka Maru	Nippon Yusen Kaisha	July 24	July 25	259	(2)
Sixaola	United Fruit Co	July 24	July 25	626	131
Santa Teresa	Grace Line	July 24	July 25	2	5
Durazzo	Hamburg-American Line	July 24		96	
Manizales	North German Lloyd	July 24		477	
Inapaquina	United Fruit Co	July 24		19	
Norman Bridge	Pan-American Pet. & Tr. Co	July 24	July 25	6,128	(2)
Coppename	United Fruit Co	July 25	July 25	735	108
San Jose	United Fruit Co	July 25	July 27	802	314
Guayaquil	Panama R. R. S. S. Line	July 25	July 27	660	105
Chetopa	Nelson S. S. Line	July 25	July 27	224	(2)
Anachucuna	United Fruit Co	July 25	July 25	36	(2)
Narenta	Royal Mail S. P. Co	July 25	July 26	14	359
Median	Leyland S. S. Line	July 25	July 26	674	(2)
Orduna	Pacific Steam Nav. Co	July 25	July 26	109	21
Caldas	National Navigation Co	July 25	July 27	(3)	198
Saramacca	United Fruit Co	July 26	July 26	6	214
Salvador	Pacific Steam Nav. Co		July 26		1,132
Van Renselaer	Royal Neth. S. S. Co	July 26	July 27	(1)	448
Amapala	Standard Fruit & S. S. Co	July 26	July 27	115	417
Havel	North German Lloyd	July 26	July 27	(1)	170
Anachucuna	United Fruit Co	July 26		29	
Waunta	Standard Fruit & S. S. Co	July 26		491	
Orazio	Italian Line	July 26		42	
Oklahoma	French Line	July 26	July 27	178	18
Orcoma	Pacific Steam Nav. Co	July 26	July 27	20	3
Heredia	United Fruit Co	July 27		429	
Buenaventura	Panama R. R. S. S. Line	July 27		31	
Wanks	Standard Fruit & S. S. Co	July 27		90	
Managui	United Fruit Co	July 27	July 27	4	330
Frankenwald	Hamburg-American Line	July 27		69	
Rugia	Hamburg-American Line	July 27	July 27	14	304

[1] No cargo discharged. [2] No cargo laded. [3] 6 cases.

Publication of Notices and Circulars of Interest to Shipping.

All of the Panama Canal notices to mariners, notices to steamship lines, and general circulars of interest to shipping in its relation to the Canal are published in THE PANAMA CANAL RECORD. For this reason it is considered unnecessary to make a separate general distribution away from the Isthmus of such notices and circulars to those receiving THE PANAMA CANAL RECORD. Shipping interests are advised to look for them in this paper, which is supplied to them without charge.

Postal and Cable Addresses of The Panama Canal.

The postal address is, "The Panama Canal, Balboa Heights, Canal Zone," or "The Panama Canal, Washington, D. C."

Mail for ships passing through the Canal or touching at either of the terminal ports should be addressed to "Cristobal, Canal Zone."

The cable address of The Panama Canal, on the Isthmus, is "Pancanal, Panama;" in the United States, "Pancanal, Washington."

Official Publications of Interest to Shipping.

Masters may obtain from the office of the Captain of the Port, at either Cristobal or Balboa, without charge, the "Rules and Regulations Governing Navigation of The Panama Canal and Adjacent Waters," and the current Tariff of charges at the Canal for supplies and services.

Requests for Canal publications sent by mail should be addressed to: The Panama Canal, Balboa Heights, C. Z.; or, when more convenient, to The Panama Canal, Washington, D. C.

The Hydrographic Office at Cristobal maintains at all times a complete stock of navigational charts and books, including charts of all parts of the world, sailing directions of the world, nautical tables, light lists, tide tables, nautical almanacs, etc.

At the office of the Port Captain in Balboa a limited stock of navigational charts, books, etc., is also carried, and this office is in a position to fill practically any order in this connection that a ship might place.

Copies of current issues of Pilot Charts, Notices to Mariners, and Hydrographic Bulletins may be obtained in return for marine information.

Observations of weather, ocean currents, and other marine data collected, and blanks, instructions, barometer comparisons, etc., furnished.

Correct time is maintained and chronometers rated.

Location of Patients and Visiting Hours, at Gorgas Hospital.

The following table shows the distribution of patients in the Gorgas hospital buildings and the visiting hours for the various wards and sections:

Section and Ward.	Visiting Hours.
Section "A:"	
Ward 2, White male	Daily, 9.30 to 11.00 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 3, American male, eye, ear, nose and throat	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.; Sundays and holidays, 9.30 to 11.00 a. m.; 2.00 to 4.00 p. m.
Section "B:"	
Ward 5, Male, private rooms, American boys	Daily, 9.30 to 11 a. m.; 2.00 to 4.30 p. m.; 6.30 to 8.00 p. m.
Ward 6, Foreign, male and female, private rooms, American girls	(No visitors permitted in nursery.)
Ward 7, White female, private rooms	
Ward 8, Obstetrical department, white females (Nursery)	
Section "C:"	
Ward 9, White foreign, male	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 11, Colored, male, surgical	
Ward 12, Colored, male, medical, eye and ear	
Ward 13, Colored, male, G. U	
Ward 14, American, male, G. U	
Section "D:"	
Ward 15, American, male, surgical	Tuesdays, Thursdays, and Saturdays, 2.30 to 4.30 p. m.; 6.30 to 7.30 p. m.
Ward 16, American, male, medical, eye and ear	Sundays and holidays, 9.30 to 11 a. m.; 2.00 to 4.00 p. m.
Ward 17, Colored children	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 18, White children	Daily, 9.30 to 11 a. m.; 2 to 4 p. m.
Ward 19, Colored, female, medical	Wednesdays, Fridays, Sundays, and holidays, 1.30 to 3 p. m.
Ward 20, Colored, female, surgical, obstetrical	
Isolation	No visitors permitted except to visit tuberculosis patients, Thursdays, Sundays, and holidays, 1.30 to 3 p. m.

Permission to visit outside of visiting hours will be granted upon application to the Superintendent's Office.
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